

# MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## FREE THE HANDS OF UNITED STATES STEEL CORPORATION FOR FULL DE- VELOPMENT AT BIRMINGHAM.

THE present situation demands the earnest and heartiest co-operation of the Government and all great business organizations.

Because of this fact it is not proper that some consideration should be given to the question as to whether the national Government might not properly accept the unanimous decision of the lower court in favor of the United States Steel Corporation and dismiss the suit now pending for a dissolution of the corporation, thus freeing the hands of that great organization, and in connection therewith have the corporation agree to spend as many millions as may be necessary to develop, on the largest scale feasible, and as rapidly as possible, its steel-making interests in Alabama in order to meet every possible emergency of the future? Every day's delay may be fraught with great danger to the country. If it is feasible and proper for the Government and the steel corporation to meet on some friendly basis for a discussion of such a suggestion, and if it should be found that the Government is justified in withdrawing its suit because of the unanimous decision of the lower court in favor of the corporation, such a course would be of almost limitless value to the nation.

### WHO AM I?

I AM more powerful than the combined armies of the world.

I have destroyed more men than all the wars of the world.

I am more deadly than bullets, and I have wrecked more homes than the mightiest of siege guns.

I steal in the United States alone over \$300,000,000 each year.

I spare no one, and find my victims among the rich and poor alike; the young and the old, the strong and the weak; widows and orphans know me.

I loom up to such proportions that I cast my shadow over every field of labor, from the turning of the grindstone to the moving of every train.

I massacre thousands upon thousands of wage-earners in a year.

I lurk in unseen places and do most of my work silently. You are warned against me, but you heed not.

I am relentless. I am everywhere; in the home, on the street, in the factory, at railroad crossings and on the sea.

I bring sickness, degradation and death, and yet few seek to avoid me.

I destroy, crush or maim; I give nothing, but take all.

I am your worst enemy.

I AM CARELESSNESS.

—(Author Unknown.)

## The Most Momentous Hour in American History

WITH what has seemed like exhaustless patience, with forbearance that has sometimes seemed too great, President Wilson has dealt with the Teutonic Allies. At last the point was reached when patience ceased to be a virtue, when forbearance would have been a crime against this country and humanity. Whatever may have been President Wilson's thought as he took the momentous step of recalling our Ambassador to Germany and handing to Ambassador Bernstorff his passports, he must have felt that this was the most solemn hour in his life, and perchance the most momentous hour in American history.

Since the beginning of the war, when Germany commenced its campaign of frightfulness, many have believed that there was no possible way, humanly speaking, by which this country could be kept from meeting the issue. The sinking of the Lusitania demonstrated Germany's plans to sink honor if in doing so it could win success.

It has seemed difficult in studying this situation not to realize that we were steadily drawing near and nearer to a crisis which would test the honor of this Government, the stamina of the American people, and their willingness to stand for right in the sight of God and man, however great the cost might be.

Duty demands that the individual and the nation shall do that which is right, and leave to the Almighty the consequences.

Doubtless President Wilson has long felt that duty would sooner or later compel the action which he took on last Saturday in severing diplomatic relations with Germany; but with a patience that has sometimes looked almost like weakness he has struggled to maintain friendly relations with Germany and to save this country from war.

No one can possibly view with deeper concern the horrors of war nor regret more earnestly the situation which confronts us in the possibility of war than the MANUFACTURERS RECORD. No sacrifice except that of honor and duty could possibly justify war. But no cost is too great to maintain honor and to do our duty to ourselves and to the world. Life itself is not worth living if it has to be lived in dishonor and in a sacrifice of all that ennoble humanity.

The man who willingly, because of his own love of daring, risks his life in pleasure is doing a foolhardy act that deserves bitter condemnation of all right-thinking people; but the man who to save the life of another risks his own is doing a service which the very angels of Heaven must look upon almost with envy of his privilege.

The nation that embarks upon war for the expansion of its commercial interests, or because it desires a place in the sun, the nation which like Germany steadily planned for war in order to enforce its influence upon the world, is guilty beyond the power of words to express. Human language has no way of painting the depth of such iniquity; but the nation which, facing a crisis brought by such an aggressor, protects its own citizens, and in

doing so helps to protect the civilization of the world, is doing that which is, so far as men can see, right in the sight of the Almighty. It cannot do less and deserve to live.

We may count the awful cost in lives, in suffering and in money, but money cost means little in comparison with the others. We may regret as deeply as the human heart can feel that such an issue has been forced upon us, but we cannot, without shirking duty, fail to meet the issue. The man who seeks to rescue the woman or the child that had been attacked by the ravisher or the murderer may be injured or killed in the struggle, but he would be a coward indeed who would turn from such a struggle in order to save himself from danger, and humanity has no place for the coward.

We cannot draw aside the veil which curtains the future from our eyes. We cannot see how long and how weary may be the road before us. We cannot measure the cost in sacrifice or the dangers that we confront; but in this hour, momentous for all time to come, for all the people who shall live in the centuries ahead, President Wilson must stand for the nation, and the nation must help him to bear the burden. Upon his shoulders rests this responsibility. Few men, if any, in all human history have had to meet an issue such as he has been facing, for the consequences are beyond the human mind to comprehend. Probably no man in all the world more fully realizes this than Woodrow Wilson. To him the nation must give undivided support; not passively, but so actively and vigorously that he may know that he is but the spokesman for the country and that the people of the country are with him heart and soul.

If as an outcome of our present conditions we should have war with Germany and Austria, we will then have a frightful illustration of the need of preparedness. Long and earnestly, with all the power at its command, the MANUFACTURERS RECORD has sought to awaken our country to the need of preparedness. Hating war with undying hatred, realizing its horrors as beyond all human words to describe, it has felt from the beginning of the European struggle that our only safety would be in strength so great, in the protection of an adequate navy and army, that no nation or combination of nations would dare to attempt a war upon us. Our weakness in preparedness has invited aggression. It has been the cause of the present situation. Had this country been as strong on land and on sea and in the air in preparedness as it should have been, the Lusitania would never have been sunk, nor would any other fiendish outrages against American citizens have been committed. If war is forced upon us, it will be the penalty of our own failure as a nation to see the dangers which we were facing, and all the cost in lives and money will be due to the work of those who in their mistaken views have fought preparedness. They would not see because they would not study the mighty changes wrought in all human forces when Germany, with its vaulting ambition for world domination, threw honor to

the winds and sought to crush Europe. The lesson was as plain as the noonday sun, but the pacifists refused to see and failed to note how overnight all human affairs had changed.

If we become involved in war we should recognize at the start that it will probably be long and desperate. Germany will go to the extreme before she will yield. She will stop at no degree of frightfulness, and, like an enraged, wounded tiger at bay, ferocity never known to civilization will be displayed.

It is vitally important, therefore, that whether war be declared between these two countries, or whether the status quo be maintained, that every power of the nation, regardless of the cost in money, should be expended in hurrying to completion a great navy and a great army and a great air service. It matters not whether upon this question we spend as rapidly as it can be poured into the channels of trade one billion or many billions of dollars, so far as the money loss is considered. This very preparation, if in time, would help to save us from war, and if there should be war it would be our only salvation from years of struggle. Every shipyard should be extended to the limit of its capacity and crowded with Government work. Every munition factory should be filled with orders from this Government, in addition to what may be doing for the Allies. New munition plants should be built in the interior as rapidly as limitless money makes possible. New iron and steel plants should be constructed there without a moment's delay. Nitrate plants should be established without regard to cost. In this work the financial leaders of the country should go forward without a moment's hesitation and spend their tens of millions as though everything depended upon their work, and the Government should at the same time go forward as though everything depended upon its work. There should be no rivalry except the rivalry which makes for co-operation and quick success. Around President Wilson should gather the strongest forces of the country to uphold his hands and give him strength to bear the infinite responsibility that rests upon him and his advisers.

### STEEL SHIPBUILDING IN THE SOUTH.

TWO steel steamships, the largest ever built south of Newport News, are to be constructed by the Tampa Shipbuilding & Engineering Co. at Tampa, Fla. This company is now building a 2000-ton boat, and has recently enlarged its capital and constructed a new plant for the purpose of increasing its shipbuilding facilities. The fact that it has secured contracts for two 3500-ton boats strikingly illustrates the shipbuilding opportunities in the South where experience and energy are combined.

It might be supposed that Tampa, far away as it is from the centers of production of shipbuilding steel, would be one of the last ports in the South to build up an important steel shipbuilding industry. It happened, however, that this company had the energy, and the management could command the capital necessary to utilize this opportunity when the world is begging for ships.

While other Southern ports are making some progress in shipbuilding, most of the work that is being done south of Newport News is for wooden boats. It is well that this phase of shipbuilding is being developed, for with the South's abundant supply of timber suitable for wooden vessels this section should construct most of the wooden boats built in this country. At the same time, the opportunity for the building of steel steamers should be utilized as fully and as quickly as possible.

Three weeks ago the MANUFACTURERS RECORD

published some facts showing that the Pacific Coast is building nearly one-third of the entire steel ship construction now under way in the United States, and yet the Pacific Coast is much farther from the plants which produce the raw materials than are Southern ports. With the same degree of energy which is being displayed by shipbuilders on the Pacific Coast it would be possible to duplicate in this section what is being done there. Here is one of the greatest opportunities which the South has ever had for the creation of an important industry, and every Southern port, from the Chesapeake Bay to Galveston, should thoroughly investigate the opportunity. The Tampa company which is making the notable progress recorded is setting an example to the whole South.

### SNOW AND ICE IN THE WEST AND NORTH VS. FRUITS AND FLOWERS AND OUTDOOR LIFE IN THE SOUTH.

LAST week the newspapers of the country were flooded with Associated Press dispatches from the West, telling of the blockade of railroad trains, which in Wyoming was said to be the worst snow blockade in the history of the Union Pacific road. Trains were from twenty-four to seventy-two hours late, and from Denver it was reported that that city had received but little Eastern mail for five days, and that the trains between there and Ogden, Utah, were from two to three days late.

At the time when the Western country was suffering from these death-dealing blizzards, the South was reveling in the glory of a splendid climate, of outdoor life, of freedom from storms and snows, and in the opportunity of the railroads to run unobstructed and for the business interests to pursue the even tenor of their way. This condition was true as to a very large part of the South. It was pre-eminently true of the South Atlantic Coast, of Florida and the Gulf Coast, where, while the blizzards raged in the West, and the snows blocked the trains for days at a time, the flowers were blooming, the birds were singing, and all nature was vocal with praise for the blessings of such a climate.

Contrast the conditions of added cost of business, of sickness and suffering and death in the West under such snow blockades with the lessened cost in the South and with the joy of living in a region where such trying ordeals on life and business do not exist!

On the very day on which these dispatches from Wyoming and from Denver were published the people in Florida, for instance, were living an outdoor life—windows and doors were wide open—summer weather, or, rather, the perfect days in June of which the poet writes, were in evidence.

The Western trains were blocked by snows and blizzards.

The south-bound trains were crowded to the limit of their capacity with people seeking to escape from the ice-bound regions of the North and West, and the north-bound freight trains were burdened with hundreds of cars of strawberries, of lettuce, of potatoes, of peas, of celery, as well as of oranges and grapefruit.

On one side of the line there were the death-dealing blizzards and the bitter cold, without the possibility of farming or of much out-door work of any kind; on the other side was the advantage of summer life, with all of the freshness of vegetation, of early fruits and vegetables in abundance.

Which side do you prefer?

Last week's freeze in Florida and in other parts of the South where freezing weather is rarely seen brings out all the more strongly Florida's unusual advantages where intense cold weather is the exception and not the rule. It is true that this freeze, which was probably the severest in this section since 1896, has done a large amount of damage, but the recuperative power of the State and of the Gulf and South Atlantic portions of the South is so great

that this loss will not seriously retard their progress nor affect their permanent prosperity.

In contrast with the blizzard and zero conditions which exist for so large a part of the entire winter throughout the North and West, the advantages which Florida and other Southern States enjoy in the rarity of these cold spells and in the splendid climate which makes outdoor life and outdoor work practicable during the entire winter is very great.

No one need for a moment suppose that the effect of this freeze in Florida and other South Atlantic and Gulf States will be more than temporary in its effect. Even while it lasted the weather was brilliantly clear, and the air was crisp and free from dampness and snows of other regions.

On the prosperity of Florida it will not have more effect than a short grain crop has on some of the prosperous States of the West. Last year some of the Western States averaged only three to five bushels of wheat per acre, but nobody for a moment has imagined that this would in any way seriously lessen the prosperity of those States or retard their progress.

With the warmth of its sunshine and the productivity of its soil, responding quickly to cultivation as it does, the section of the South injured by the freeze will quickly rebound, and the losses of last week, though temporarily serious to many individuals, will not halt the progress and prosperity of these rapidly-growing regions.

### ADVANCING SAFETY IN INDUSTRY.

HUMANITARIAN, efficiency-financial and sociological reasons are three prime factors in the impelling motive of the National Safety Council, Continental and Commercial Bank Building, Chicago, Ill., an organization established with the stated purpose of helping to free mankind from accidents, to that end having as members all those concerned and interested in the safety movement, to bring about an understanding of accident causes and find and apply remedial measures.

An idea of the organization itself may be had from the statement that it consists of the necessary executives and office force and a committee of fifty safety experts working out the maximum and minimum requirements for safeguarding; of its scope, from the statement that it has a membership of 2500 industrial, transportation, public utility and insurance companies, trade organizations, chambers of commerce, etc.; of its accomplishments, that actual accident reductions effected by members has been in the case of such highly organized and efficient concerns as the International Harvester Co., 88 per cent.; Illinois Steel Co., 85 per cent.; Eastman Kodak Co., 78 per cent.; Packard Motor Car Co., 72 per cent.; Southern Pacific Co., 76 per cent.; Chicago Surface Lines, 80 per cent., besides a reduction in accidents to school children in the case of the last named.

After such an array of conclusive evidence of the splendid work being done by the National Safety Council, of which the instances cited are merely examples taken from many more such occurrences of the reduction of the waste in human beings in industrial pursuits, it seems hardly necessary to mention the reasons advanced by the Council as to why its services are needed by employers. Very briefly, they are, because safety work costs less than accidents, means a rebate on insurance premiums, is true humanitarianism, promotes good feeling and team work, is the study of the right and orderly way of doing things, increases operating efficiency and economy. It is said that at least 75 per cent. of the accident prevention problem relates to common causes, which are solved only through organization and education.

In order to form what might be termed a safety encyclopedia, the best information attainable about safe practices of all kinds is being published in pamphlets devoted to special phases, arranged so that they may be bound in loose-leaf style, thus building a coherent whole that should be an invaluable aid to the beginner in safety work and a valuable reference to the veteran.



## A BEACON LIGHT FOR ALL THE WORLD IN SPIRIT OF SOUTHERN COLLEGE.

WHEN a prominent educator of the South takes up an analysis of the educational work of his institution from a standpoint of what it is doing for its own State; when he asks whether the courses of instruction are such as to enlighten the students on the political and economic requirements of their section of the country, and when he points out manifest opportunities for the State to contribute more generously in a work which in the end will do more toward the development of its resources than any other one enterprise, the MANUFACTURERS RECORD rejoices. It is in line with the new era, and it signals the arrival of reinforcements of the highest order.

Reference is made to the annual report of President Edward K. Graham of the University of North Carolina. President Graham begins with the admirable preface that his report is not made in the spirit of official necessity nor as a special pleader for his institution. He asks of the trustees an interest in the review of the work of the university, and through them "the attention of all men to whom the large and permanent welfare of the State is an active concern." Thenceforward President Graham remains true to his text.

Comparing the modern college life with the old, the report shows the passing of romance, in so far as this clustered around more or less amiable law-breaking. There has been substituted the principle of self-government. This applies not only to matters of student discipline, but to class attendance as well. The results have worked out most satisfactorily.

Much importance attaches to the representative character of the student body. The leading denominations represented are the Baptists, with 317, and the Methodists, with 315. On the registration books are the sons of 386 farmers, 168 merchants, 63 lawyers, 50 doctors, 48 manufacturers, 36 ministers, 33 public officials, 27 bankers, 25 mechanics, 23 teachers and 20 railroad men. Certainly these figures contain evidence of the spirit of true democracy. The four leading professions—law, medicine, teaching and preaching—are represented by 172 students; the four leading occupations—farming, merchandizing, mechanics and railroading—by 599; bankers and manufacturers, by 75; salesmen, real estate and insurance agents, printers, contractors, fishermen, butchers, lumber dealers and bookkeepers, by 106.

As regards the activities of the students, in addition to their full schedule of college duties they have for the past ten years kept up throughout the winter from seven to ten Sunday-schools. Last fall they taught six moonlight schools, with 300 pupils enrolled. They have also conducted free lecture lyceums, supported one of the most influential young missionaries in China and looked after a Y. M. C. A. for negroes—all of this at their own expense and wholly of their own initiative.

This, together with the record of the summer school and extension work, furnishes a most admirable basis for numerous comments and conclusions. It demonstrates the sterling worth of the student material and its immense value as a contribution to the State of North Carolina. There is a review of notable gifts to the institution during the year from those who had been educated at the university and from others in the State. The present prosperity of North Carolina and the consequent ability of its citizenship to do more are set forth in the following patriotic appeal:

I believe that with the proper effort the trustees and others interested could greatly increase the equipment of the University if they would call the attention of men of wealth in the State to its work and its needs, and the productive use it is making of its resources. There was a time when the State had practically no men wealthy enough to do for the University what the men of the North and East have done for their great institutions, and through them for their States. That time has passed. There are now a hundred men in the State who, without personal sacrifice, could perform a service of noble and enduring patriotism, and so permanently honor their own

names, by investing a small part of what they have earned in some form of beauty and usefulness on this campus. More and more our men of wealth, whether alumni or not, will see the wisdom of this means of public service.

It will be noticed that this appeal is to the people of the State alone. The MANUFACTURERS RECORD has always held that the building up of the South along any lines should be the work of its own people. The investment of capital from other sources is not in contradiction with the idea. That will essentially mean an identification of the investors with the interests of the South. The Southern States as such should also do more for the higher educational work. One glance at the following table, furnished in President Graham's report, showing the amount of State support given to seven Southern universities and seven Western universities, discloses differences that should not exist:

South		West	
Texas	\$365,246	Kansas	\$585,000
Arizona	296,298	Iowa	767,200
Kentucky	295,577	Nebraska	861,000
Mississippi	172,900	Ohio	1,041,482
Oklahoma	179,615	Michigan	1,429,800
Georgia	155,500	Wisconsin	1,735,928
North Carolina	145,000	Minnesota	2,063,913

That the tremendous difference indicated is not a difference in ability to pay is shown by further figures of the tax burden for university maintenance in the several States mentioned. Two-fifths of all the white property-owners in North Carolina pay less than 9 cents a year to university support. For every thousand dollars of taxable property in the Southern States named there is paid from 18 to 39 cents for university maintenance. In the Western States mentioned there is paid on the same amount from 46 cents to \$1.98 cents for the same purpose.

This summary of conditions of maintenance is not given apart from a serious reflection on the purposes of a university. On this point President Graham says:

The State has the unquestioned right to say what sort of University it wants, and what amount and quality of education it wants. But the amount and quality that it wants should be clear; for what it will get is not governed by accident, but is the inevitable result of State policy and practical provision and determination in carrying out its desire. We need, above all else, to get clear our true conviction in regard to all our educational enterprises; whether we are promoting them as a sort of conventional necessity or whether we believe what we say when we say that education is the life of democracy, and therefore, to be judged in the swift, inevitable terms of life and death, and not bargained for in the impersonal, fumbling compromises of conventional charity.

A few more quotations will suffice.

The fundamentals of democracy have all of their vital roots in education. Equality of opportunity is there, and there alone. To talk of equal opportunity in circumstances that now exist in our Southern States is political cant.

And again:

"Education is not a local issue. Its standards are relentlessly set in the markets and open forum of the world. A thousand times over we have paid the price for our blindness in the past, and daily for every dollar we save we now pay tribute ten times over. The immediate future will put us under far greater tribute. The issue is but a new form of the ancient issue of slavery and freedom. An ignorant people are as truly in slavery, economic and intellectual, as if they were in physical bondage. 'An educated mind is the genius of democracy.' \* \* \* It is the only dictator that freemen acknowledge, and the only security that freemen desire.' Without it there is no freedom."

This clear enunciation of a great Southern educator should appeal to the South. It has already been the subject of no little comment in official circles in Washington. If it be true that the preservation of the democratic spirit in the South has gone hand in hand with a prejudice against endowment of colleges, the feeling should be removed. Their place in determining the South's development toward its rightful destiny, in effecting its enlightenment on every phase of political matters in their relation to economic and commercial conditions and the awakening of an intelligent interest therein have seldom been so logically and convincingly set forth as in President Graham's report.

## SOME LESSONS TO BE LEARNED FROM ENGLISH MANUFACTURERS.

COMMENTING on business conditions in England as effected by the war, Printers' Ink gives an interesting illustration of the abiding faith of some English manufacturers in pushing for business and in keeping themselves thoroughly advertised even while they are unable to deliver their products.

As an example of what Printers' Ink calls "faith in advertising," its statements may be studied with profit by American business men who are sometimes inclined to unwise boasting, and to a belief that American business men are more alert in advertising than English concerns, whereas a study of many English papers would at times make a reader think that the English were very far ahead of the people of this country in the art of advertising.

Discussing these points, Printers' Ink says:

We are quite accustomed to the idea that advertising is more highly developed in the United States than elsewhere. We are prone to assure ourselves that American business men have a stronger faith in advertising, a clearer understanding of its powers, and a higher efficiency in its use than is possessed abroad. We have been told so, often enough, by advertising men from other countries, so our belief is not attributable solely to egotism. Since the war began, however, England has been setting some examples of advertising which are not easily duplicated.

We have referred many times to the British Governments advertising for soldiers and for subscriptions to the war loans—an unprecedented and extremely profitable use of advertising on a tremendous scale. We have noted many instances of British concerns which have made far-sighted investments in advertising to protect their good will under adverse circumstances. And now comes the British automobile industry with an example of faith in advertising which puts to the blush some of our American advertisers who are "oversold"—and cancel their advertising orders in consequence.

If it takes a high degree of faith in advertising to advertise when the factory is oversold, what about the faith which continues to advertise when it is practically impossible to sell any goods at all? That is just about the condition of the British automobile industry. In the first place, every available automobile factory which is not making cars for the army is making war munitions. There is an embargo upon the importation of pleasure cars from other countries. Private owners of automobiles are under an allowance of six gallons of gasoline per month. Sir Hedley Le Bas, the official advertising manager for the Government, is placarding the country with such warnings as: "You are helping the Germans when you use a motor-car for pleasure." According to a special investigator sent by Automobile Topics, the retail trade is absolutely paralyzed. It is not only impossible to get cars, but to sell those cars which are already on hand. Yet, in spite of such discouraging circumstances, the British newspapers and magazines continue to carry automobile advertising.

The investigator above referred to specifically mentions Willys-Overland, Limited, Daimler, and Wolseley as advertising for "after-war" business. Dunlop and Michelin tires are featured almost as prominently as ever. "The day is steadily drawing nearer when we shall resume the production of motor carriages for private owners," says a piece of Daimler copy, and when that day comes the company expects to occupy the same high place in the public mind which it had before the war began. It is using advertising as the best possible insurance against public forgetfulness.

The British automobile industry is setting a high standard of faith in advertising, and understanding of its true functions. American advertisers cannot afford to be too complacent over their "leadership" in the face of such examples as these.

## TRYING TO CONTROL EDUCATION.

A GOOD deal of discussion has recently been aroused by some plans of the General Education Board for shaping the educational interests of the country in accordance with its views. Just why anyone should, at this late date, be surprised at the effort of the General Education Board to mold the education of the country, the MANUFACTURERS RECORD is at a loss to understand. From the very beginning the Board has, by its entire course, shown that this was its plan. It was because of this position that the MANUFACTURERS RECORD antagonized it so vigorously and warned the country of the inevitable danger to education. This Board has within its power greater potentialities for evil than all the trusts which have ever existed in the country if they had had the power that their opponents charged them with having, because the General Education Board has shown its power to dominate education, and through this domination to affect the life of the nation.

## THE SOUTH WANTS THE AMERICAN ROAD BUILDERS' ASSOCIATION IN 1918.

**I**N urging the American Road Builders' Association to choose some Southern city for its 1918 meeting and road show, the MANUFACTURERS RECORD would emphasize some of the many sound reasons why the South feels justified in making this request.

In proportion to its wealth it is believed the South is spending more money on road building than any other section of the United States. The progress that is being made and the interest aroused for the building of roads justly command the enthusiastic commendation of every man in the United States interested in the great question of good roads, a question vital to the nation's progress and almost to a nation's civilization.

Under many disadvantages, hampered by the lack of the accumulated wealth of the East and West and hampered too by a sparsely settled territory, for in proportion to its area the South is thinly populated, this section has been doing a magnificent work in road building. What it has achieved is worthy of the highest commendation of the members of the American Road Builders' Association. What it is seeking to do is worthy of the hearty co-operation of every man in this country interested in road building and in national progress. The development of the road system of the South is helping to round out national life and advance national prosperity.

This section comprising one-third of the nation's land area, with three-fifths of the nation's coast line, a more varied combination of resources than has been given to any other equal area on earth, is the nation's greatest asset for future development. Here is a field for limitless business expansion. Here is a field in which every line of industrial activity can be pressed for individual and national advancement. To a large extent the resources and the progress of this section are not understood by the business men of other sections. Many of them have looked upon the South as something apart from the nation instead of looking upon it as the most priceless material asset of the nation whose resources are waiting development which would vastly increase national prosperity and national safety.

With its coast line three-fifths of that of the United States, it is incumbent upon the nation for national safety to see that this section is developed, that roads available for use in war as well as in peace are constructed throughout this great territory.

The American Road Builders' Association can do the South and the nation from these points of view, a great service by holding its next meeting in the South. There are many places in the South which would welcome the meeting and give the members an opportunity to see what has been done and rejoice in the stimulation which their presence and their activity would give in the furtherance of road building. There are still many sections in the South which need to be awakened to the importance of road building, the meaning of good roads to business and civilization. Every section of the South would be awakened by the coming of this organization, for every newspaper in all this region would give the broadest publicity to the meeting and to the papers presented and to the exhibits made. Therefore, without suggesting any particular city, the MANUFACTURERS RECORD would strongly urge upon the Association to utilize this occasion and in furthering the great work of its organization add to national progress and even to national safety in the way which it is believed would not be possible by any meeting held anywhere else than in the South.

The South is already spending over \$50,000,000 a year in building improved highways, and much more than that in street and kindred work. This splendid work which it is now doing can be greatly increased in extent and in value by the bringing into the South of the foremost leaders of road building in America, which will increase interest in every phase of road activity.

The West, the Central West and the East having

had this important road gathering in the last three years, it seems in logical order for the South to be chosen for the 1918 meeting.

## B. N. BAKER AND THE SHIPPING BOARD.

**A**T the Pittsburgh meeting of the National Foreign Trade Convention, Capt. Robert Dollar, one of the great shipping leaders of the Pacific Coast, said: "What we want is a little more construction and a little less destruction in our Government's policy." This was in regard to the proposed merchant marine. As to the new shipping board, Captain Dollar said: "I know them, and they are men of great character, but when I want a suit of clothes I don't go to a shoemaker. There is a lawyer, a lumberman and a railroader, and only two real shipping men on the board. The Republicans did their worst to hurt us, but the Democrats were better figurers and were able to do us up better than the others."

Since Captain Dollar made these statements the one man on the shipping board who has stood out nationally for years for his pre-eminent knowledge of shipping interests has been compelled, in justice to his own self-respect, to resign. Bernard N. Baker of Baltimore was the only man on the Atlantic Coast who ever created a great trans-Atlantic shipping company and made a big financial success of it, but Bernard N. Baker, who in his love for the nation's merchant marine had helped Secretary McAdoo to formulate his shipping bill in such a way as to destroy some of its worst features, found that he was to be bossed and that he was to be dictated to as to how the shipping board should be run, and that, too, for political effect.

Though in the prime of life, Mr. Baker has had a most remarkable experience in world shipping affairs. He retired from active business on a well-earned fortune, but, believing that his experience was worth something to the country, he was willing to devote his time to this board, hoping that he might do some constructive work for the upbuilding of the nation's merchant marine. Mr. Baker made a mistake, and the MANUFACTURERS RECORD has, from the beginning, felt that he was making a mistake when he even tentatively connected himself with so unwise a proposition as the Government's shipping scheme.

## SOUTHERN DEMOCRAT FOR PRESIDENT OF PROTECTIVE TARIFF LEAGUE—AN EXCELLENT CHOICE.

**I**N electing Charles A. Farwell, a Southern Democrat, as president of the American Protective Tariff League, a new precedent has been set, and the innovation is one which will command wide attention. Mr. Farwell is heavily interested in the sugar industry, for he raises the cane, grinds it and also sells the sugar. His home is in New Orleans, and he is the surviving partner in the firm of Milliken & Farwell. In his telegram of acceptance, Mr. Farwell said: "I am engaged in agricultural, manufacturing and commercial affairs. I shall, as your president, devote myself to the upholding of these elements in the prosperity of our country by the application of the policy of protection in legislation to field, factory, labor and counting-house."

Although acting with the Democratic party in local affairs, Mr. Farwell has been a stalwart protectionist for the more than thirty years of his active business career. He recognizes the policy of protection as essential to the prosperity of the whole country, and all his business life has advocated protection not only for Louisiana sugar, rice and lumber, but for the beet-sugar industry of the North and for all American agricultural and industrial interests. He is a man of clear insight, great energy and conspicuous force of character.

The American Protective Tariff League could have chosen no one more fit to be its head, nor one more able to carry on, throughout the South and the country as a whole, the vigorous campaign of education in behalf of a protective tariff which this country needs at this time.

## A NATION'S PRAYER.

**T**EACH us, O Thou Almighty Ruler, Thy will for this nation, and arm us with strength from on high to follow Thy guidance!

Let us not be moved by passion nor controlled by fear.

Grant that we may know Thy leadership as clearly as Thy people of old saw the pillar of fire by night and the cloud by day, but save us from the lack of faith in Thy guidance and from the failure to follow Thy teachings which caused the people of Israel to wander for forty years through the wilderness.

In this, the supreme hour of civilization, when Heaven-given human liberty is at stake, grant that we may not falter when once we have clearly heard Thy command.

If it be Thy will that we serve by waiting, give us the patient strength to do it; if it be Thy will that we follow the awful perils of the armed contest, let us not do so in any spirit of vainglory, nor for any other reason than willingness to serve mankind by following where Thou leadest.

We long, O Prince of Peace, for Thy rule and for the day when the implements of war shall be supplanted by the tools for man's advancement, when hate shall give place to love, when right shall be might, when from earth's remotest bounds shall be heard the glad cry of reunited families and reunited nations.

But we know not where Thou shall lead us ere that day come, and so seeking not our individual or national will, but Thine, we beseech Thee that our eyes may be opened to see Thy leadership, our ears unstopped to hear Thy voice, and, having seen and heard, may we be ready to do Thy will in Thy way and in Thy good time.

We have grown selfish and self-centered; we have longed for ease and prosperity more than for the power to serve mankind, and thus serve Thee. But Thou hast called us unto mighty responsibilities. Help us to accept the burden and go forward in Thy name. Let us not be as those of old who, because they were neither hot nor cold, but lukewarm, were spewed out of Thy mouth.

And grant that this nation may be united in thought and word and act; that all ill-will and hatred may be melted out of us and all the people fused into one perfect whole, ready to hear and follow Thy command.

Unto the leaders, the President and those in authority, give in large measure Divine wisdom, and in this hour may they have the strength of body and mind and soul needed to enable them to do Thy righteous will.

Daytona, Fla., February 2, 1917.

R. H. E.

## EXTENDED USE OF ELECTRIC MOTIVE POWER.

**T**HE decision of the Chicago, Milwaukee & St. Paul Railway Co. to extend the use of electric motive power over 220 more miles of its far Western lines is one of the most important of recent railroad announcements, and it is a most emphatic approval of the success attending the use of electric locomotives exclusively on the 440 miles of main line through the Rocky Mountains between Harlowton, Mont., and Avery, Idaho. The new extension of this power will be used for hauling the trains through the Cascade Mountains to the Pacific coast. The electricity will be generated at hydro-electric plants adjacent to the road, which will now soon have 600 miles electrically operated.

Estimates of the economy accomplished by the use of electricity, according to C. A. Goodnow, assistant to the president of the railroad company, show that four hours are saved by each freight train on each 100 miles of the line. Among the other great advantages are ability to make long runs without overhauling, braking by reversing the motors, which, in addition to checking the speed of trains, also generates electricity, which is turned back through the wires for use, and the ability to operate under the most adverse weather conditions.

The late announcement that the Norfolk & Western Railway would extend the use of electricity on its lines in the mountains of West Virginia is also in line with this increased use of the new power in the far West.



## THE SOUTH WAKING UP TO ITS OWN ADVANTAGES.

NOT for twenty-five years has the South been so thoroughly aroused as at present to a study of its mineral resources and the development of its iron and steel interests. A quarter of a century ago this section was literally afire with enthusiasm about its coal and its iron ore, which made possible a great development, but when the Mesaba region was opened up, the iron interests of the South were so seriously handicapped for a time that much of this enthusiasm died out.

We are now coming into a new period of enthusiastic, intelligent study of the South's mineral resources, and out of this will come an awakening of this section and the certainty of great iron and steel activity. Much of this is due to the interest that has been aroused in various cities of the South seeking to secure the proposed Government armor-plate plant. Many cities are in active rivalry to secure this industry. Some of them are employing able experts from the North as well as local men to investigate their resources for such an industry, and to present comprehensively and thoroughly their advantages. Out of this investigation and through this friendly rivalry there has come a quickening of the whole life of the men in these communities. They are studying local advantages as they never studied them before, and outside experts will study them as they never studied them before.

The possibilities of this section for steel-making will be intelligently presented to the Armor Plant Board, and through this Board will be widely discussed in every metallurgical center in the country. Some of the cities which are contending for this plant have given to their study of their resources a degree of thought and attention far greater than ever in the past. Some of the briefs and the elaborate maps which have been prepared are worthy of the opportunity and of the best life of the South. There is not a city engaged in this contest which will not know more about itself than it has ever known, and, if the armor-plant proposition should never accomplish anything else, it would have been of almost limitless value to the South, and thus to the country, by this quickening of the study of the South's advantages for iron and steel. From this investigation will come a broader knowledge of the South than this section has ever had, and following this will come a determination on the part of the South to utilize these resources with outside capital if it can be had, but if that is not available, with local capital, for the larger development of its boundless opportunities.

Somewhat similar conditions have been brought about through the study of the South's advantages for the proposed nitrate plant. Some little study has been given to this subject in Georgia and in Carolina and elsewhere. None of these places, so far as we have been able to learn, except the Muscle Shoals project, has even touched the rim of the importance of the plant, or of local advantages for it. Muscle Shoals has done the finest piece of scientific promotion study and work which, we believe, has ever been done in the South, matching anything of the kind that has ever been done in the United States. The brief prepared in behalf of Muscle Shoals is primarily an encyclopedia of information about the South, about the country, about our need of nitrates and the value of nitrates in time of peace as well as in time of war. Money has not been stinted in the preparation of the report from the scientific standpoint, nor in its publication. It is a work of art, and from every point of view is bound to attract attention. In the armor-plate business Knoxville has followed a similar line. The portfolio of maps of the Knoxville district which has been prepared in connection with the brief in behalf of that locality is the finest thing of the kind which has ever come to the attention of the MANUFACTURERS RECORD.

We have mentioned the Muscle Shoals and the Knoxville promotion work as indications of the kind of literature which should be prepared by the South about its advantages not only for these particular industries, but to make known broadly to the country the great resources of this section. Matching these two important pieces of promotion

is the splendid work that is being done by some Southern cities, notably Birmingham, Chattanooga and Gadsden, in the employment of the ablest outside experts to be had for the purpose of presenting their advantages to the Armor Plant Board. It is well for the South's experts to present the claims of this section, but some people might say that these men were biased in the interest of their own communities. Men of national reputation, from the outside, could not be charged with such a bias.

The whole situation is interesting. It is an illuminating illustration of how the South can be aroused to a situation of this kind, and when once aroused it will never go back to the non-progressive ways which prevailed in some of the cities which are now taking the lead in progressive work.

## BROAD PATRIOTISM, NOT SECTIONAL BIAS, MUST DETERMINE SELECTION OF SITE FOR ARMOR PLANT.

SENATOR BENJAMIN R. TILLMAN, chairman of the Committee on Naval Affairs, in a letter to the MANUFACTURERS RECORD, says:

I have your letter of the 31st of January and am transmitting it to the Secretary of the Navy, with the suggestion that in case a site in the South is found to be best suited for the location of the armor-plate plant in other respects, it would be well, if doubts are entertained about the quality of raw materials being found there, to get the testimony of Judge Gary in regard to it.

My own wish is to see the plant located in the best place possible, regardless of the section of the country in which such spot may be found. It is for the common defense and general welfare, and no other consideration should be involved. If the South is the best place, the plant should be placed there; if not, not. We who would like to see the South get the institution must be very careful that we wish it because it would be best for the whole country. But, of course, you realize all this without saying it.

With this patriotic sentiment of Senator Tillman, which is worthy of him, the MANUFACTURERS RECORD heartily agrees. From the beginning of the movement made by the MANUFACTURERS RECORD to secure the building of an armor-plate plant in the interior we have persistently taken the ground that we were not working in the interest of any particular city or State or section, but that, in the broad interest of the nation's welfare, we are seeking to secure the building of an armor-plate plant at the best point in the interior, to be selected by the ablest experts, provided that point is away from the coast and not dependent upon foreign or Lake ores.

We have repeatedly said that the MANUFACTURERS RECORD was not working from a sectional point of view, and would be content if this plant should be located anywhere in the South or Southwest—even out to Colorado. It would, however, we are sure, be a fatal blunder for the Government to build such a plant on the seaboard or in any place dependent upon ores the supply of which could be cut off at any time. It would likewise be a monumental blunder for the Government to refuse to build a plant in the South or Southwest on any theory that the ores of these sections were not available for the manufacture of armor plate.

The MANUFACTURERS RECORD reiterates the statement, which it has repeatedly made, that this question of an armor-plate plant or munition plants and of an enlarged iron and steel development, away from any section dependent on Lake and foreign ores, is too broad and too vital to the nation to be touched by any sectional interest. But in making this statement we insist that the Government shall not be controlled by the false statements put forth in behalf of localities in which armor-plate plants exist, on the claim that the ores of the South and Southwest are not suitable for the manufacture of the highest grade of steel that can be produced.

We are glad that Senator Tillman has so clearly stated his views on the subject. In doing this he shows that, like the MANUFACTURERS RECORD, he is not moved by sectional feelings, but by a broad patriotism that takes in the welfare of the whole country.

The acute situation with Germany adds emphasis to all we have ever said about the dangers to our country so long as we are dependent for nearly 95 per cent. of our steel upon Lake and foreign ores.

## THE REVIVAL OF ROUND-BALE INTERESTS IN TEXAS.

EFFORTS are being made in Texas to revive actively the development of the round-bale system for handling cotton. A report recently made to the Farmers' Union Convention fully confirmed many of the statements of the MANUFACTURERS RECORD, made when the round bale was first being introduced, as to its superiority over the present baling system, and the saving which would be effected to farmers in the handling of cotton by the round bale in preference to the square bale. This report pointed out the advantage of the round bale in the lessening of freight, in the lessening of insurance, in the elimination of the "city crop," all of which were points fully emphasized many years ago. Unfortunately, the breakdown of the management of the old round-bale system has long delayed full opportunities for the development of this method of handling cotton. The system was so vigorously fought by vested interests, including the square-bale people, that it has never, except to a limited extent, been developed as its merits justify. In discussing this phase of the situation, Mr. D. E. Lyday of Rabina, Tex., who made the report to the Farmers' Union, said:

You can say for me that we put the compress people and all the many interests and powers behind the square-bale system in Texas who have fought and bitterly resented any attempt to reform the present wasteful and iniquitous system on notice that we are determined to wipe out these abuses in the interests of the producers of cotton in Texas, and if it takes the round bale to do it, we are going to have the round bale. These interests are right now organized to kill in the present Legislature beneficial legislation passed in previous Legislatures affecting the farming interests, and I considered it a very short-sighted policy on the part of any business interest to aid and abet them in this selfish enterprise, which is against sound public policy. As a matter of fact, they are getting a generation behind in the march of progress, and their methods have got to go into the scrap heap.

## EVEN WALL STREET MAKES MISTAKES.

GOVERNMENT armor-plate plant will cost \$27,000,000, and not \$11,000,000 as estimated by Mr. Daniles. Would Wall Street tolerate business on such lines?—Wall Street Journal.

Well, New York once furnished \$26,000,000 to complete a railroad project which the engineers had reported would cost \$10,000,000, and even at the heavier cost the road is prospering. Perhaps the New Haven road's history might furnish some proof that Wall Street is not always right. Wall Street and experts make many mistakes, and if the Journal can show a single big undertaking, even the building of a large dwelling, where the cost did not exceed the expert's estimates, the public would be glad to have the facts. The Journal is usually too wise to make such a break.

## He Did Not Know, Did Not Understand.

[The Bache Review, New York.]

This picture of England's soul which Hall Caine has drawn should bring realization of things, as they are, to the most exalted pacifist. In his cabled message to the New York Tribune he says:

The fact is—if an Englishman may be forgiven for saying so—it is very difficult for any American, even if he is not burdened by the President's official responsibilities, to feel the war as we feel it. The 3000 miles of ocean which divide you from the scene of this wide sweep of devastating forces make it nearly impossible for you to know the imminent terror and constant pain of the war. It is with us always in every house, in every family. We meet it face to face every day, and all day. It lies down with us at night. We hear its dream-voice in the darkness, and it gets up with us in the morning. The profoundest sympathy of the friendliest people—brothers speaking the same dear tongue—can never plumb the depths of our sorrow. Hence, you can never know the intensity of our determination.

If President Wilson had really known how this war has entered our souls he could never have talked to us—however he might have talked to our enemies—about "peace without victory." He must have felt that to do so was cutting us to the heart—a heart where there is no desire for revenge, but only an undying prayer for justice.

# Some Facts About Florida, Present and Prospective

[Editorial Correspondence Manufacturers Record.]

Daytona, Fla., February 2.

The recent announcement that a contract has been signed for a hotel to cost \$1,300,000, to be built on the west coast of Florida, does not come any too soon. Indeed, there is need in Florida for a hotel building era somewhat matching that of the time when Flagler built his string of hotels on the East Coast and when Plant put several million dollars into the Tampa Bay Hotel and the Belleview at Belleair. Since that day there has been no hotel building period in Florida commensurate with the development of the State or matching that period. It is true there have been many small hotels and some large and substantial ones put up during the last few years, but the warning given to Florida last winter by the MANUFACTURERS RECORD and to the railroads leading to the State that the tourist business of this winter would far exceed hotel and railroad facilities is already being fulfilled.

The rush of travel to Florida last winter was very heavy. It overtaxed the capacity of the railroads and the hotels. Over and over, during the winter and spring and summer, the MANUFACTURERS RECORD sought to impress upon the railroad people and upon all Florida hotel interests that the travel of the present winter would far exceed that of last winter, and that neither the railroads nor the hotels were adequate to the requirements. These statements are being fulfilled to an even greater extent than was anticipated. Florida is overcrowded. Its hotels are already booked up to their fullest capacity, and every good hotel in the State, I believe, is daily declining to make new engagements. From every direction telegrams and letters are coming seeking to secure rooms, but without avail. It is true, of course, that many people who have not yet made engagements will come to Florida and will manage to find accommodations, but even now there are many important places in the State where people are sleeping on cots in hallways or parlors, while some of the larger tourist centers are more crowded than ever before in their history.

The rush of travel to the State may be indicated in the fact furnished to the MANUFACTURERS RECORD by the Pullman Company, that at the present time there are between 130 and 140 Pullman cars reaching Jacksonville every day on regular trains, while last week there were 215 extra Pullmans, and the week before 235 extra, reaching Jacksonville in the effort of railroads to meet the demand for accommodations. Taking these extra Pullmans, added to the regular daily number, it is seen that there are now nearly 200 Pullman cars a day reaching Jacksonville from the North and West. The Pullman people are put to the limit of their ability to meet the demand, and every day the railroads are carrying out of the State solid dead-head Pullman trains, in order to get cars back to the North and West as quickly as possible.

These are the conditions which Florida and the railroads leading to Florida now face.

When the war is over some of this tide of tourist travel will go to Europe, but it is altogether probable that the number of tourists now in Florida who after the war will go to Europe will be more than made up by the ever-expanding interest throughout the country in Florida.

At last the nation is waking up to what Florida is and what it is destined to be. Throughout the State can be found many people who in former years spent their winters in California, but who tell you that the Florida climate far surpasses that of California. This tourist business, therefore, is destined to steadily increase. From year to year it will begin earlier, and instead of the crowd not reaching Florida until the middle of January, it will in a few years be pushing into the State by November or early December, and thousands who have heretofore returned from Florida to the North and West with the first sign of a spring day in their own home regions will stretch out their Florida stay and not leave here until April or May. The number of tourists will steadily increase, and the length of their stay will increase. This situation demands a recognition on the part of the railroads, and it should

stimulate hotel people and capitalists to build many hotels at many points throughout the State both on the East and the West Coast, as well as in the interior.

Florida is at last coming into its own, and its own is to be a condition where it will be nationally recognized as the great playground and winter home of hundreds of thousands, not simply of the idle rich, but of the great plain people, the men of moderate means, and the men of small means. Indeed, the State has long since ceased to be counted as the winter resort of the idle rich, for the number of people of moderate means who come here for the winter probably far exceeds the number of the rich. People are finding that they can escape the rigors of Northern climates; that they can live here as moderately or as expensively as they choose; that they can find in nearly every part of Florida a duplicate on a small scale of Atlantic City, with its numberless hotels and boarding-houses and cottages for rent.

One feature of Florida life which has never received adequate recognition is the ability to find comfortably furnished homes for rent, homes ranging from the inexpensive but well built bungalow to far more elaborate places. Housekeeping, so far as marketing is concerned, in variety and extent, matches homekeeping opportunities in any of the great cities of the country. It is becoming the common thing, and should be more widely adopted, for people to rent furnished homes for the winter, or else to build and own the bungalow or the larger cottage and spend their winters in the comforts of home life, without the disadvantages of the average boarding-house or even of the larger and more expensive hotel.

With an increase of population in the United States now amounting to about 20,000,000 every 10 years; with a growth in wealth at the rate of about \$1,000,000,000 a month, the number of people who will be able to get away from the death-dealing blizzards of the North and West to the balmy summer climate of Florida is increasing at a rate which has not yet been adequately appreciated by the railroads nor by hotel owners or capitalists interested in hotel properties.

Several years ago, when the writer first undertook to motor through a portion of Florida, roads were almost impossible propositions. You simply traveled through a waste of sand, misnamed roads. On the first motor ride between Jacksonville and Daytona, 110 miles, against which we had been warned, two other automobiles were met, and they created astonishment that any other motorist should have been so foolhardy as to risk the trip which our party was making. But, in studying the question of what good roads would mean to the South, many trips were made from year to year through roads that were declared by local people to be impassable and impossible propositions, with the determination to find the worst and see how great would be the improvements following the construction of good roads. That seems but a few years ago. Today, Florida is literally alive with automobiles. Before Christmas more than 5000 automobiles from the North and West had passed through Jacksonville alone on the way to points farther south. Today, the automobile is in evidence everywhere. Indeed, there are many roads on which there are too many for comfort and pleasure in motor-ing. The streets of every town are crowded with them. There are cars in Florida from many Southern States, from every Northern and Western State by the hundreds, from California, from Oregon and Washington, from various parts of Canada, and even from far-distant Manitoba. A few days ago a car reached the town in which this is written in which a trip was being made by two ladies, traveling alone, who had motored from Portland, Ore. From here they have journeyed to the West Coast. From there they will go to New Orleans, and from New Orleans on to Texas, and through California, and back to Portland. Standing in the garage close by this Oregon car was one from Wisconsin, the owner of which last summer in a visit to Portland had spent a week in the house next door to the one owned by these two lady motorists, without having met them. Not until the strange accident of travel brought the cars together at the same garage did these facts develop.

This is typical of thousands of interesting phases of the motor life of Florida. It is typical of the wide range of States and towns from which motorists are coming, and yet the motor tourist business to Florida is in its infancy.

Within the last two or three years, including the amount that is now being expended, Florida has put about \$17,000,000 into the construction of improved highways. As told in the MANUFACTURERS RECORD a few weeks ago, it is building straight through the Everglades a 90-mile road, which will make it possible to motor from Miami across to the West Coast and up to Tampa.

It is such daring road building as this that is being done all over the State. The enthusiasm with which counties and towns are carrying on this road-building campaign should be an inspiration to the people of the whole country. From the deep, bottomless sand roads of only five or six years ago there have now been created thousands of miles of splendid brick and sand-asphalt roads, with many other roads well made of oyster shells, which can be had by the millions of bushels, or of limestone, which is the basis of so large a portion of far Southern Florida. Most of these roads are narrow, but it has been deemed wise to get as much length as possible, knowing that when once a narrow road has been stretched through the country it will be possible to build it up to meet the increasing traffic. Throughout the whole State the automobile is in evidence. You are scarcely out of sight of a car, coming or going, anywhere on any of the main highways of Florida, and even far out in the byways, which have not yet been thoroughly improved, there is no longer any danger of not seeing other motorists, for there are many people who still like to adventure over bad roads and find their way to unknown places.

It was freely predicted in these columns a few years ago that when once good highways had been constructed through Florida, automobiles from every part of the United States would flock here by the thousands. Some opponents of expenditures for roads thought the statement overdrawn. Today the reality shows that it was mild and almost pessimistic as compared with what has already been developed. Early in December a North Carolina man in an afternoon motor trip of two or three hours met 16 automobiles from Northern and Western States bound for Florida, and in commenting on the number that had passed through his town before Christmas stated that he did not see how the whole State of Florida could accommodate the automobiles which had already passed his store on the way south. Over the Dixie Highway, incomplete as it is, there were some weeks ago, so it was officially reported, over 100 cars a day bound for Florida.

These facts touching motor tourist business and the rush of travel over the railroads, the difficulty of the Pullman Company finding cars sufficient to meet the rush and the difficulty of the hotels and boarding-houses caring for the crowd already here are merely slight indications of what the future will show.

In its superb climate Florida has an asset for the creation of wealth as tangible as would be boundless stores of coal and iron. At the same time, it has in its widely diversified and productive soil almost limitless opportunities for the extension of early fruit and vegetable growing, for the citrus fruit industry and kindred operations. The movement of early fruits and vegetables out of the State by express and fast freight trains more than matches the rush of tourists into the State on Pullman trains and by automobiles.

Florida is to duplicate, yes, more than duplicate, California. The railroad manager who fails to grasp this fact is shortsighted.

R. H. E

## Testing Clay Properties.

An article by A. F. Greaves-Walker, reprinted in pamphlet form from Brick and Clay Record by the industrial department of the Central of Georgia Railway Co., Savannah, Ga., and being distributed complimentary to interested individuals and concerns, contains valuable information on a subject the author thinks is too lightly regarded, to the loss of many clay works investors. The text, aided by diagrams, aims to put the location of clayworking plants on a sure and scientific footing. Haphazard placing, the unnecessary cause of many failures, is replaced by testing on a scientific geological basis.



## Over \$50,000,000 Will Be Spent by Schwab at Sparrows Point

BIG BALTIMORE PLANT OF BETHLEHEM STEEL CO. TO RECEIVE NEARLY TWICE AS MUCH AS ORIGINALLY ESTIMATED—NO CURTAILMENT IN ANY LINE—DESCRIPTION OF NEW WORK AS OUTLINED BY VICE-PRESIDENT ROBERTS.

By SAMUEL G. WILMER.

Fifty million dollars will not cover the total amount which the Bethlehem Steel Co. will expend in enlarging and expanding its plant at Sparrows Point, near Baltimore.

How much more than that will be expended it is impossible to say. Even the officers themselves do not definitely know just what it will cost to carry out all that they intend doing to make the works at Sparrows Point the greatest steel manufacturing plant on the seacoast of the United States.

Since it acquired control of the Pennsylvania Steel Co., early in 1916, the Bethlehem company has had its officials and engineers studying the situation, and as they proceeded with the work of analyzing conditions and possibilities at Sparrows Point they have added here and there, as was found necessary and prudent for the immense steel output that will flow from this plant, the result being that million after million was added to the original estimates, until the excess has reached approximately \$20,000,000, making the total now more than \$50,000,000.

An industrial vision of comprehensive magnitude is revealed in the description of the extensive plant which the MANUFACTURERS RECORD here presents to its readers, on information given by an officer of the company.

No time was lost. Lots of work has already been accomplished. Since last summer three large buildings for the tinplate manufacturing plant have been started and are near completion, together with smaller connecting buildings, and two new big shops have been occupied at the marine department, as the shipbuilding plant is called. These are all of brick, steel and concrete construction, it being the practice of the Bethlehem Steel Co. to erect permanent structures at its plants.

Foundations are being prepared for more buildings to house the additions to the steel manufacturing departments; the ship channel is being deepened from the ore dock out to the main ship channel leading to Baltimore, and grading is under way on various parts of the tract preliminary to the erection of buildings. Everywhere are scenes of earnest activity, and yet the work is not proceeding as expeditiously as desired because of difficulty in securing labor as rapidly as wanted.

"We will spend more than \$50,000,000 upon the enlargement and improvement of our Sparrows Point plant," said Mr. W. F. Roberts, vice-president of the Bethlehem Steel Co., to a representative of the MANUFACTURERS RECORD, who saw him recently at Sparrows Point on the occasion of one of his visits here, "and," he continued, "easily two-thirds of this work is contracted for and under way. We have today nearly 1000 men working exclusively on construction work at this plant.

"It will require about three years to complete our plans here. At first it was thought that we might get through in about two years, but owing to the scarcity of labor and material, we have found that it will not be physically possible to get all this extension work done in the time we originally contemplated, so that we have found it necessary to somewhat extend the time set for completing the entire program. In addition to this, there is also a decided operating advantage in completing, as we will do as soon as possible, two of the four blast furnaces which we will build, and simultaneously with them all the related features sufficient to utilize immediately the output from them.

"Then having gotten in operation that much of the additions to be made to the plant, we will build the other two furnaces and all the rest of the facilities which go into operation with them. Thus there will be no money lying idle in any feature of the plant, but all will be producing as soon as it is completed.

"Our decision to divide our improvement work into two parts gave rise to erroneous reports that we had abandoned our original plans to more than double the capacity at Sparrows Point. On the contrary, we will not only do all that was announced when Mr. Schwab first came to Baltimore, but considerably more than

that, for as the situation here was studied, additions here and there were made to the plans, so that instead of spending \$35,000,000, as was at first proposed, our total expenditures, because of adding new features, etc., will run over \$50,000,000.

"The four blast furnaces will be built right on the waterfront, east of and parallel with the present furnaces. Each of these new furnaces will have a daily capacity of 500 tons, as compared with 450 tons for each of the old furnaces, also four in number, so that when all are completed the furnaces will have a total possible daily output of 3800 tons. As the old furnaces were all wholly rebuilt several years ago, we will have practically an entire new furnace equipment. The contract for the first two of the new furnaces has been let to the Riter-Conley Company of Pittsburgh. Each of them costs about \$1,250,000, so that the new investment in blast furnaces alone will be about \$5,000,000; and in connection with them there will be 240 by-product coke ovens built, also costing a total of \$5,000,000.

"In the steel-making plant four 200-ton tilting furnaces are being installed and will be operated in conjunction with three 25-ton Bessemer converters, so that when these installations are complete the plant will be able to make either straight Bessemer steel, open-hearth steel or duplex process steel.

"Of course, there will be the usual cranes, mixers, ladles, etc., provided in connection with these furnaces. There will also be a 36-inch reversing slabbing mill and a 40-inch blooming mill, the contract for the latter being let to the Mesta Machine Co. of Pittsburgh.

"Back of the 40-inch bloomer are 24-inch and 18-inch continuous mills, which are also purchased. These latter will roll billets and sheet bar. We have also bought two plate mills, 110-inch and 60-inch universal, and we have plans being made to add a 166-inch plate mill and three continuous merchant bar mills.

"Our tinplate plant," said Mr. Roberts, "which was to have been built at Canton, near Baltimore, by the Baltimore Sheet & Tinplate Co. when we acquired that company and changed the site to Sparrows Point, is all erected, the main buildings being three in number, one 980x147 feet, another 840x166 feet and the third 750x125 feet. All are of brick, steel and concrete construction. We have already spent on this plant over \$800,000, and will be ready to operate in May. The sheet-bar mill will furnish the material to make tinplate.

"We will install in connection with the new blast furnaces nine gas engines to drive the blowers. There are now five of these engines in use, in addition to the old steam-driven blowers. These five were built and installed some time ago before the Bethlehem Steel Co. had any idea of acquiring the plant, although it built the engines. This new installation will give us 14 gas engines for blowing the furnaces.

"Moreover, we will abandon the use of steam for driving all the machinery and will use electricity instead everywhere throughout the Sparrows Point plant. This power will be provided by four twin electric generating machines at first, and four more will be added later. All the gas engines will be built by the Bethlehem Steel Co. at the Bethlehem plant.

"Our marine department has just completed a new machine shop, of brick, steel and concrete construction, with large steel-sash wire-glass windows. It stands parallel with the shore of Bear Creek, on the north side of the plant, and is 425 feet long and 180 feet wide. This is equipped with big overhead electric cranes, and is a very large, light and airy building. This department has also completed a fabricating shop of still larger dimensions. It stands at right angles to the machine shop, although not very near it. It is 625 feet long and 160 feet wide. This shop has two bays, and one-half of it has a second story for a mold loft, where plans for ships are prepared. Another way for the erection of vessels is also being built. It will be large enough for the construction of a 100-foot or 20,000-ton steamship. This will be the seventh ship-

way at the plant. A number of other extensions are also either under way or contemplated at the marine yard.

"We are building here five ore steamers for our own use to carry ore from either Cuba or Chile, as may be desired, although they will at first bring ore from Cuba to our dock here. Four of these will carry 11,000 tons of ore and one 17,000 tons. We will build more of them. They will represent, at the present cost of steamers, about \$1,750,000 each, or a total of about \$8,750,000.

"Our ore dock at Sparrows Point will be extended 600x500 feet to accommodate the increased imports of ore, etc., and two additional unloading and stocking bridges will also be installed. The channel to the dock from the main ship channel in the river, the Brewerton channel, will be deepened to 35 feet (it is now 30 feet) for the new boats, the first of which will be finished in June. The water alongside of the dock will also be deepened to 35 feet. This work has been let to the Maryland Dredging & Contracting Co., which is now engaged upon it. The work of building the concrete facing for the addition to the dock has been let to the Raymond Concrete Pile Co. of New York, Philadelphia and Baltimore.

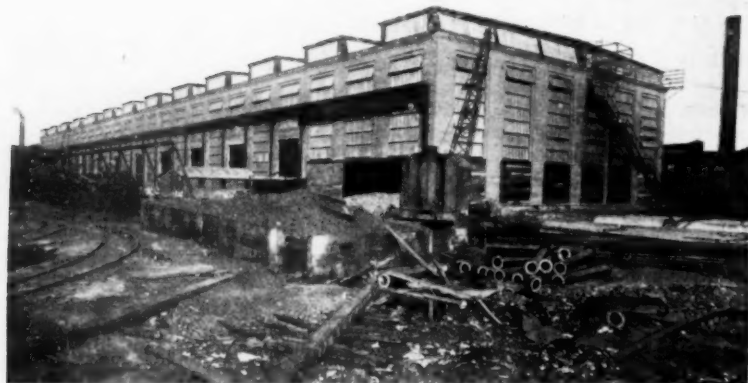
"There will be built adjacent to the coal dock a complete coal-handling and coal-crushing plant, with combination unloading and storage bridges, at a cost of about \$1,250,000. We will also build a railroad, the Patapsco & Back River Railroad, 6½ miles long, which has been incorporated to serve the additions to our plant. It may do some common carrier service, as it is privileged to do so, but its main purpose will be for our industry.

"There have just been completed in Sparrows Point \$500,000 worth of additional dwellings for employes, and more will be built from time to time as may be required."

This impressive sketch of what the next few years will witness at Sparrows Point, made by Mr. Roberts while waiting for a train to start on his return journey to South Bethlehem, Pa., where his office is located, presents in graphic outline a picture of the great work of expansion that will characterize the Maryland steel plant for this year and next and the next.

In the future appears an era of wonderful activity. On the shore a row of huge blast furnaces, operating day and night; steel mills simultaneously in operation at all hours; big steamships arriving with great cargoes of iron ore from Cuba and Chile to feed the roaring fires in the cupolas, and they, in turn, to feed the greedy mills here and there, hungry for more and more material demanded by appetites that are seemingly never satisfied; all machinery driven by electricity, excepting the gas engines for blowing the furnace fires; big ships under construction on the seven ways of the shipyard, to the accompaniment of an unceasing clatter of riveting machines; trainloads of coal arriving for the coking plants; continuous rumbling of railroad cars to and from the mills and furnaces, and immediately beside all of this ponderous industrial activity the manifold other energies of a town of 10,000 people, created in company with the growth of the steel plant itself, all of it overhung by a far-reaching canopy of black, brown and white smoke that can be seen for miles upon miles by day and which glows at night here dully, there with flaming brightness, as it reflects the fires of slag piles, mills and furnaces. Already it is an inspiring sight; a few years more and it will dwarf what present imagination may picture as it is to be.

The ore supplies of Sparrows Point come from Cuba, and later they will be supplemented by ore from Chile via the Panama Canal. The Cuban ore fields are of immense extent, especially those on the northern coast, which are called the Mayari fields, where 800,000,000 tons are officially said to have been proven, or from 30 to 40 per cent. more ore than the United States Steel Corporation was supposed to control at its beginning, at which time Mr. Schwab expressed the opinion that



FABRICATING SHOP, MARINE DEPARTMENT.



MACHINE SHOP, MARINE DEPARTMENT.

the ore was worth \$1 per ton as it lay in the ground. But in addition to these are the deposits near Santiago, on the southern coast of Cuba, known as the Juragua mines, which have been owned by the Pennsylvania Steel Co. since 1882. Combined, these Cuban ore deposits would seem to be worth, according to Mr. Schwab's estimate of \$1 per ton, approximately \$1,000,000,000, and probably more.

company to produce mixtures of steel of great value in the manufacture of high-grade products. The iron content of the Chile ore is said to be about 67 per cent., or about 17 per cent. more than the average Lake Superior ore, and it lies on the surface; there is no dirt capping.

All of these ore fields are held by organized companies controlled by the Bethlehem Steel Corporation, which is itself a holding company for all the related

the Juragua mines up to the first of last year was 7,219,941 tons of high-grade Bessemer ore.

A standard-gauge railroad, with a total of about 57 miles of track, also connects the Mayari mines with the terminal on the coast at Felton, where the usual shipping facilities are provided. Mayari is near Nipe Bay. On one of the Mayari properties 40,000,000 tons of ore have already been measured up. The full development



TINPLATE PLANT IN COURSE OF ERECTION.



MAIN BUILDING OF TINPLATE PLANT.

On the plateau of the Mayari Mountains lies the ore deposits of the northern coast, covering about 52,000 acres. They are only 14 miles from the shore. The ore lies close to the surface in beds from 17 to 18 feet thick, and is mined by the use of steam shovels at small expense. This ore is particularly valuable on account of its content of chrome nickel.

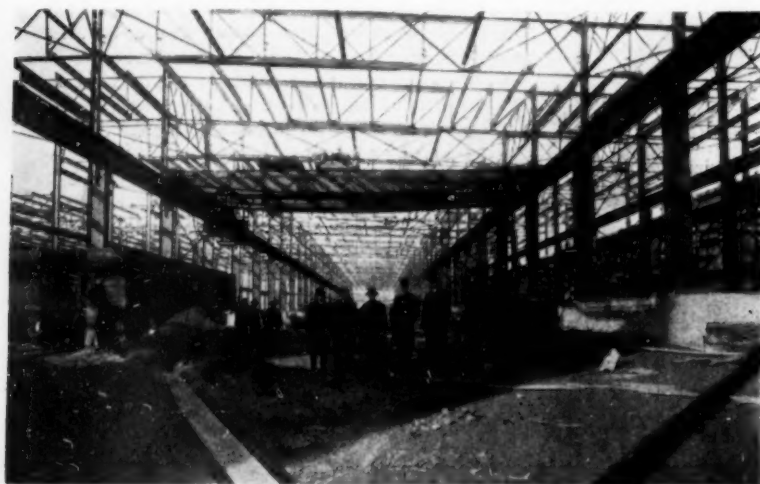
The ore from the Juragua mines has long been prized for its especial qualities for the manufacture of steel by the Bessemer process. Both of these are high-grade ores, and, in connection with the Chilean ore, to come from the fields near Coquimbo, Chile, will enable the

properties of the Bethlehem interests. The Mayari fields are held by the Bethlehem Iron Mines Co., capital \$1,000,000; the south coast fields by the Juragua Iron Co., capital \$600,000, and the Chilean fields by the Bethlehem-Chile Iron Mines Co., capital \$4,000,000.

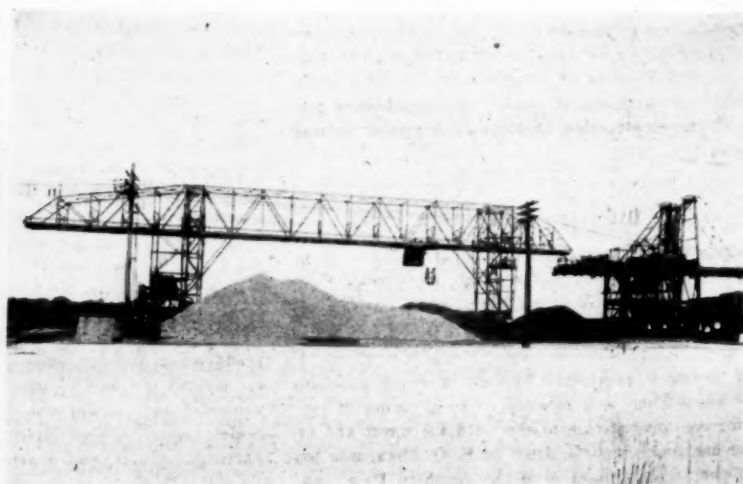
The Juragua mines have been continuously operated since 1884. They are on a tract of 10,500 acres owned by the iron company, of which 2200 acres are known mineral land, and the value of the property is said to be several times the amount of the capital stock. In connection with the mines are a railroad, a mining town and a loading pier on the coast. The output of

of the Chile mines and shipping of ore from them to Sparrows Point will come later.

It will be observed that the tremendous possibilities of the iron-ore properties of the Bethlehem Steel Corporation are yet to be realized. What has been done is but a drop in the bucket as compared with what the future will see, and, furthermore, that the vast ore holdings in Cuba were acquired through the deal which resulted in the acquisition of the Pennsylvania Steel Co. and the Maryland Steel Co. The Bethlehem Steel Corporation itself secured control of the Chile ore fields in 1912, and early in 1913, incorporated its subsidiary



INTERIOR OF MAIN TINPLATE BUILDING.



IRON-ORE HANDLING PLANT AT PIER.



company to operate them. Arrangements were made to have ships built in Europe carry ore to the United States, but now, as the Bethlehem company has a shipbuilding plant of its own at Sparrows Point, it will construct the vessels necessary to draw supplies from Chile, in addition to those from Cuba.

Great piles of the Cuban ore lie upon the shore beside the ore dock at Sparrows Point, where they are placed as the steamers are unloaded by means of the unloading and stocking bridges. These brown heaps are continually receiving additions from the mines, and they are likewise being continually drawn upon by the furnaces. Of the Mayari steel it is stated that in its natural or forged condition it has from 8000 to 10,000 pounds per square inch higher tensile strength and elastic limit than ordinary carbon steel of the same carbon content, while heat-treated it is equal or superior to 3½ per cent. nickel steel.

When the Bethlehem Steel Co. obtained the Pennsylvania Steel Co. and the Sparrows Point properties it also gained control of 16,000 acres of coal lands in Indiana county, Pennsylvania, which the Pennsylvania Steel Co. controlled through the Penn-Mary Coal Co. These mines produce from 500,000 to 600,000 tons of coal a year.

How highly the Bethlehem Steel Co. esteems the Sparrows Point opportunities is shown by a statement which its officers made last year when the property was acquired. It was then said that these properties would give this company a plant at the seaboard which it had long desired for the development of its export trade, and in this brief utterance is indicated the company's intention to engage in foreign business to an extent greatly above and beyond what is already done at the Bethlehem plant. Furthermore, the acquisition has enabled the company to add to its output Bessemer steel products and other general steel lines of manufacture which it did not formerly produce. This expansion in variety of output might have been accomplished by erecting additional plants at Bethlehem, but for a number of reasons it was deemed best to reach the desired result by purchasing the Pennsylvania Steel Co. and the Maryland Steel Co., not the least of these considerations, it may be assured, being the big plant on the Patapsco River, its great stores of cheap iron ore and its limitless transportation facilities. Moreover, there is land enough at Sparrows Point for indefinite expansion of manufacturing.

The Bethlehem Steel Corporation's properties now include (in addition to the main plant at South Bethlehem, Pa., the Maryland steel plant at Sparrows Point and the Pennsylvania steel plant at Steelton, near Harrisburg) the Union Iron Works of San Francisco, which has a big shipbuilding plant, besides foundries and machine shops for the manufacture of mining and other machinery; the Harlan & Hollingsworth Corporation of Wilmington, Del., which has a shipbuilding plant, a carbuilding plant, foundries, shops, etc.; the Samuel L. Moore & Sons Corporation of Elizabethport, N. J., having iron foundries, machine shops and facilities for marine repair work; the Fore River Shipbuilding Corporation, which has a shipbuilding plant at Quincy Mass.; the Titusville Forge Co. of Titusville, Pa., and the Philadelphia, Bethlehem & New England Railroad, a switching line at South Bethlehem; the Saucon Land & Improvement Co. at the same place; the Cheever Iron Ore Co., with mines at Port Henry, N. Y., and the Detrick & Harvey Machine Co. of Baltimore.

Operating in co-operation with all these plants, the Sparrows Point works may be called upon to furnish raw material or manufactured products for any of their manifold activities, which range from the making of pig-iron to the construction of battleships and armament therefor.

### In the Interest of Southern Pine.

Russell T. Gheen has been appointed manager of the trade extension department of the Southern Pine Association, effective March 1. Mr. Gheen is now assistant professor of forestry of the New York State College of Forestry, Syracuse University. Beginning March 1, F. V. Dunham, previously field agent of the Southern Pine Association, will be assigned to the work of promoting creosoted paving blocks, both for street and interior use, and will be assisted by E. O. Moss, who has been paving representative of the Southern Pine Association in the Kansas City district for the past two years.

### WORKING UP EXPORT TRADE.

#### How Some Southerners Have Gone Right After Foreign Business, and Got It.

By CRITTENDEN MARRIOTT.

At the Foreign Trade Convention at Pittsburgh I ran across some Southerners who have on their own initiative gone after foreign business and have succeeded in getting it and holding it. One of the "finds" of the convention was a young manufacturer from Texas, who, at a total traveling cost of about \$5000, had worked up an export trade in his motor-truck business amounting now to \$500,000 a year. J. G. Culbertson, general manager of the Wichita Falls (Tex.) Motor Co., told the delegates that his company made—not merely assembled, but made—motor trucks which it shipped to about 35 countries in all parts of the world. Those delegates who knew something about the possibilities of Texas, with its 10 hours of working daylight even in the middle of winter, were astonished, and most of the others were astounded.

Mr. Culbertson explained that he had done this by employing a first-class export expert, an Italian whom he had obtained from a flour-making friend, who did not fancy the foreign field. For two years he had come very near agreeing with his friend; then things had changed. And now the friend wants to get the expert back.

Except for the initial \$5000 traveling expense, nearly all of which was incurred by Mr. Culbertson himself, the business is conducted solely by catalogues and letters, followed up by full explanatory letters when a prospect is located. Some of the people who inquire about trucks live half a world away, and do not want to lose time in writing four or five letters of inquiry. The firm's letters are, therefore, extraordinarily full, giving every possible detail that the purchaser can want to know (including weights and measurements of the packing boxes in which the parts are shipped). Many of these letters bring drafts by return mail—perhaps three months later. All shipments are made from Galveston or New Orleans.

That personal acquaintance, square dealing, and an effort to please will win Latin-American trade was positively asserted by Owen Gathright of Louisville, Ky. Some years ago Mr. Gathright of Harbison & Gathright made a pleasure trip to the east coast of South America, with no idea of doing business. However, he took some catalogues along. In Rio Janeiro he met, through a Y. M. C. A. introduction, a Brazilian who dealt in saddlery, which was one of Mr. Gathright's manufactures. Neither spoke the other's language, but the Brazilian could puzzle out the catalogues and insisted on placing an order for a dozen high-priced saddles. Mr. Gathright was reluctant to take the order, fearing that the goods, which were necessarily somewhat different from the South American types, would not give satisfaction. Nevertheless, he shipped the saddles, making a few superficial alterations that he thought would bring them nearer to Brazilian appearances. From that small beginning a large and profitable trade has been worked up, and today hundreds of Kentucky saddles career all over the high grassy slopes of middle Brazil.

Mr. Gathright does all his work by means of catalogues, and has found that they bring orders. He thinks that the old days when it was necessary to give nine months' credit are over, and that a maximum of 90 days will henceforth be the rule.

Fred. P. Stieff, Jr., of the firm of Charles M. Stieff, Baltimore, is another manufacturer who believes in catalogue advertising, especially if the distributor is personally known and trusted by the recipient of the catalogue. Mr. Stieff was in the Northwest coast of South America some years ago, among other places in Lima, Peru, and naturally made the acquaintance of the leading dealers in pianos at the time. The interviews which Mr. Stieff had with the piano dealers were of an entirely personal nature, for the field at that time seemed very unsatisfactory from the standpoint of selling high-grade pianos. After various discussions in regard to the method of doing business in that country Mr. Stieff succeeded in winning the confidence of a particular dealer there. A year later catalogues were sent this particular dealer, and a year following the receipt of these catalogues, when the supply of German pianos was cut off, the firm of Charles M. Stieff received a cable inquiry for prices, which prices were cabled in return;

a cable order followed and pianos were shipped and received. While they were not exactly according to order, a very definite statement was made to the dealer that should he find them unsalable on receipt or in any way unsatisfactory that the goods would be taken off his hands, free of any expense whatever to him, and the cost of shipping both ways to Lima and return would be met by the piano house, and that if the house were forwarded designs which were popular in Lima at the time they would be made up to order accordingly.

The catalogues, together with the sincerity of the house to give the dealer in the foreign country every possible benefit of a doubt, was all that was necessary to close a successful deal. The goods were satisfactory in every particular, and the dealer satisfied in every way, according to recent correspondence, with the transaction.

### STEEL STEAMSHIP CONSTRUCTION SOUTH.

#### Two 3500-Ton Vessels to Be Built at Tampa by Shipbuilding Company Recently Chartered.

Materials and machinery have been ordered for and construction is about to begin upon two oceangoing freight steamers of steel by the Tampa (Fla.) Shipbuilding & Engineering Co., recently organized with \$800,000 capitalization. These ships will each have a tonnage of 3500, and it is stated that they will be 50 per cent. larger than any steel steamers ever built south of Newport News, the largest heretofore being a 2000-ton steel steamship, Poughkeepsie, which the Tampa Foundry & Machine Co. contracted to build. This latter corporation has been succeeded by the Tampa Shipbuilding & Engineering Co., and the Poughkeepsie's construction is rapidly progressing.

The two new freighters will each be 274 feet long, with a 42½-foot beam and a loading draft of 21 feet, containing 160,000 cubic feet of cargo space. They have been designed by J. W. Millard & Bro. of New York. Each ship will have two masts and eight cargo booms, steam and hand power steering gear, steam-heating equipment, electric-lighting system, etc.

About 500 men will be employed while these two steamers are being constructed, and the Tampa Shipbuilding & Engineering Co. has specifications for plant additions to facilitate this and other prospective work. Plans provide for a plant area 190x150 feet for buildings, and mechanical equipment has been ordered to include three 200-horse-power crude-oil engines and generators, air compressor and machine tools.

### FLUSH TIMES IN DIXIE.

#### South Liquidated Its Cotton Around 15 Cents, an Authority Declares—Negro Cotton Farmers Buying Real Automobiles.

Washington, D. C., February 3.—[Special.]—"Times are mighty good in Louisiana now," declared Walter Parker, manager of the Association of Commerce, New Orleans, who has been here attending the meeting of the National Association of Commerce. "Everybody in the South is in good shape, and every class of industry is thriving—the sugarcane, the lumberman, and, above all, the cotton farmer is in clover. The South liquidated its cotton around 15 cents on the average, and all the fluctuations of recent months did not affect the Southern farmer in the slightest. To give you some idea of the avalanche of prosperity that has descended on our section, I might mention the fact that negro cotton planters are buying automobiles—real automobiles, not the 'flivver' kind, but machines that cost \$3500 or so—and are buying them out of their profits on cotton, which some of them have marketed at the rate of \$100 a bale."

### Admire Its Progressive Policies.

L. P. DICKIE, Secretary the Tampa Board of Trade, Tampa, Fla.

We are great admirers of the MANUFACTURERS RECORD and its progressive policies, and are always ready and willing to assist in any way we can to make it an even stronger publication.

## National Well-Being Broadly Discussed by Chamber of Commerce of United States

[Special Correspondence Manufacturers Record.]

Washington, D. C., February 3.

The fifth annual meeting of the Chamber of Commerce of the United States, held in Washington on January 31 and February 1 and 2, was of peculiar importance on account of the character of its representation and the nature of the topics discussed. These facts obtain all the more significance through the grave questions that confront the country at the present moment.

The National Chamber, composed of 5000 members, with 300 applicants on the waiting list, is an organization that has for its purpose the bringing together for common counsel the public interests of the country on all questions of vital national importance. Its membership covers every State of the Union, and also the District of Columbia, Hawaii and Alaska. For some time past it has referred to its members matters bearing on the welfare of the nation, with a view to securing their opinion and advice, and through such expressions to do what it can to expedite good legislation and to prevent hasty and ill-advised action on the part of the law-making body when such seems imminent.

The sessions at the conference just closed, which were held at the New Willard Hotel, Washington, were largely attended by the members of the National Chamber. There were also present at the meetings many men of prominence in public life, who participated in the discussions and presented papers.

The wide range of matters considered at the meetings included the subjects of national defense, daylight saving, vocational education, railway legislation, measures for the extension of foreign trade, and numerous other matters of scarcely less importance.

In his address to the delegates on the afternoon of the first day's session, R. Goodwyn Rhett, president of the organization, announced its spirit as being against class legislation, special privilege and all other methods which do not take into consideration the welfare of the people of the country as a whole. In reviewing the work of the National Chamber during the year, Mr. Rhett spoke of its growing activities and called attention to the fact that it has never urged any course not concurred in by a two-thirds vote of the organization's members.

A report, presented by A. W. Shaw, chairman of the Chamber's Committee on the Department of Commerce, took up the question of "A National Business Program." The plan worked out involved the question of a method of finding what it costs to do business in the United States. Mr. Shaw asserted that France, Germany and the United Kingdom were speeding far ahead of the United States in efficiency under war pressure. He proposed three remedies: That the Department of Commerce find out what it costs to do business in the United States; following this, it should set reasonable standards for all, and third, it should tell the less efficient how to come up to the standard. When Mr. Shaw had presented his report, Howell Cheney, chairman of the Committee on Vocational Education, presented the report of that committee. Its general conclusions were that the Vocational Educational bill pending before Congress will fail of its ideal unless the States contribute far more than the Federal Government. It was the sense of the report that the legislation will have failed in its purpose if it does not inspire broad and scientific research and exert an influence far-reaching in its effect toward making all public education more democratic. To effect this the National Chamber has advocated a board that will be representative of the interests vitally concerned—employers engaged in manufacturing, commercial pursuits, labor, agriculture and educators.

At the Wednesday night session one of the most important subjects, that of railway legislation, was taken up. The announced vote showed that the Chamber not only recognizes the interest of the public as paramount in railway differences, but urges a majority representation of the public on any board of conciliation or arbitration. This result was obtained by referendum to 465 affiliated organizations. On the question of the provision of the uninterrupted of transportation while a full public investigation of disputes was in progress,

the votes were 1226 in favor and 18 in opposition. It was pointed out at this stage that on all questions of public policy in which a referendum had been submitted to members of the organization there had been a remarkable unanimity of opinion expressed by the members. The procedure endorsed by the National Chamber is in keeping with the President's legislative program in its application to railway differences.

As to the question of Government ownership, Walker D. Hines, the spokesman, said: "Think of the bills each Congressman would bring in to have branch railways built in his district! And the depots! And stations! Why, the present 'pork barrels' under Government ownership would look like kegs!" Among the suggestions was that Congress create under the Interstate Commerce Commission a permanent commission to compile railroad labor statistics and other data for the use of arbitration boards in all future railroad controversies.

At Thursday's sessions definite declarations regarding the nation's unpreparedness, the advocacy of universal military training, and recommendations for the acquisition of additional West Indian Islands by purchase, for the greater security of American and Latin-American commerce, were made. The report of the Committee on National Defense, based on a referendum to the members of the National Chamber, was overwhelmingly in support of the principle of universal military training, there having been a vote of 970 in favor and 8 against the proposal. Startling statements of the nation's unpreparedness were made by Howard E. Coffin of the Naval Consulting Board. Figures were read by him which show that England could land a huge force of men on the Eastern coast within a short time, and that the Government plants now manufacturing munitions would require eight years to manufacture the rifles needed to supply a suitable repelling force and 25 years to supply cartridges. He further stated that it has been estimated that it would take from one to two years for these plants to change to the manufacture of war munitions.

The convention passed important resolutions dealing with the business interests of the country, elected directors for the ensuing years and adopted amendments to the by-laws. Steps were taken toward securing a permanent home for the Chamber in Washington, subject to the approval of the organization's members.

At this session the Chamber voiced the sentiment of the business men of every State in expressing to the President its profound appreciation of the gravity of international difficulties now confronting the nation, and solemnly pledging the public to stand as one "in patriotic purpose whatever the eventuality."

The Chamber endorsed the proposal for "daylight saving," and recommended appropriate legislation by Congress. A further resolution set forth that the necessity for or the desirability of improvement of inland and coastal waters should be determined largely by their present usefulness as carriers of commerce. The Chamber reaffirmed its proposals for a budget system in connection with national expenditures, and urged the appointment of a commission consisting of trained economists and statisticians through which the statistical activities of the Government may be properly correlated.

Friday afternoon's session considered the question of "Business in Print," and the necessity for the encouragement of a wider knowledge of the nation's business. In a paper presented by Richard H. Waldo, secretary of the New York Tribune, it was pointed out that, with one-sixteenth of the world's population, we print more than one-half of the world's literature. "We read everything," said Mr. Waldo, "and, remembering almost nothing, turn over to the lightest things." "Harold Bell Wright can sell 2,000,000 copies, but it is remarkable if 5000 copies of James Whelpley's Trade of the World can come into appreciative hands."

The afternoon session was also devoted to "Preparations for Conditions After the War," with addresses by Franklin Adams of the Pan-American Union, at whose building the meeting was held; Dr. George S. Rowe, secretary-general of the International High Commerce;

Wallace D. Simmons of St. Louis, and Secretary of Commerce William C. Redfield. Dr. Rowe urged that American business men lay the foundations for permanent commercial relations with the merchants of Latin America. Mr. Simmons recommended that local chambers of commerce and organizations of like character assist in the systematic development of the Latin-American trade. Referring to the demand for lumber, cotton, agricultural machinery and finished forms of iron and steel of many kinds to rehabilitate devastated Europe at the close of the war, Secretary of Commerce Redfield said: "Our part in the coming days of peace is to be one of initiative, of active reconstruction, not one of more or less feeble resistance to foes strangely grown powerful through terrible disaster."

President Wilson was to have addressed the Friday night meeting at the Willard Hotel, but was prevented by the serious situation in the nation's foreign affairs. Former President Taft was present, however, and issued a solemn warning to Germany of the consequences which may result to herself from the Teutonic proposal ruthlessly to wage war on neutral shipping that enters entente waters. The temper of the American people toward Germany's attitude was clearly manifested by the manner in which the words of the former President were received.

### HIGH-GRADE STEEL FROM ALABAMA PIG

#### Very Low Percentage of Phosphorus and Sulphur Shown in 1420 Heats.

As demonstrating the high grade of steel made in electric furnaces from Alabama pig-iron, a letter from the Anniston Steel Co. is of especial interest at this time. The letter was written to Thos. E. Grafton, secretary of the Board of Trade of Rome, Ga., and is as follows:

Anniston Steel Co.,

Anniston, Ala., January 20.

Mr. Thos. E. Grafton,  
Rome, Ga.:

Dear Sir—Relative to conversation of yesterday, please be advised that we have checked over the 1420 heats made on our electric furnaces here, and the average phosphorous and sulphur is as follows: Phosphorous, .0282; sulphur, .0274. In all this work specifications called for phosphorous and sulphur .05 and under. As explained to you verbally, these heats were all made from miscellaneous scrap, in a portion of which the phosphorous and sulphur ran rather high.

As regards the use of pig, we have made steel from Woodstock iron from the Woodstock furnaces here at Anniston, with the following results:

Pig-iron from Woodstock furnaces which analyze as follows:

Carbon	Manganese	Phosphorous	Sulphur	Silicon
3.25	.66	1.04	.021	1.51

Final analysis of the steel made was as follows:

Carbon	Manganese	Phosphorous	Sulphur	Silicon
.48	.51	.037	.024	.19

You will note that the sulphur in the steel is a little higher than the original pig charged, which is explained by the fact that the pig-iron picked up considerable sulphur in the cupola.

Should there be any further information we could give you in regard to our operations here, we shall be very glad to forward same upon request.

(Signed) J. S. WATERMAN,

Anniston Steel Co.

### For Panel and Veneer Manufacture.

An output of finished product to the value of \$350,000, a force of 150 men and an annual payroll of \$100,000 are the plans of the Inman Veneer & Panel Co. of Louisville, Ky. This is a \$150,000 company which will be organized by Charles W. Inman and associates. The plant has been secured through the efforts of the Louisville Industrial Foundation, which was recently organized with a \$1,000,000 fund to secure and assist in the financing of industrial enterprises at Louisville, and will purchase \$50,000 preferred stock of the new company. The new plant will include brick buildings, with 200,000 square feet of floor space, on a 430x280-foot site, together with storage space for 2,000,000 feet of lumber and trackage for 15 cars.



## For Greater Diversification in Crops and Increase in Raising of Live Stock

SOUTHEASTERN LAND SHOW AT ATLANTA STIMULATES PEOPLE OF SOUTH SEABOARD STATES AND ATTRACTS ATTENDANCE OF MANY FROM STATES NORTH AND WEST.

[Special Correspondence Manufacturers Record.]

Atlanta, Ga., February 5.

"Diversification of crops," long advocated by the MANUFACTURERS RECORD, is the slogan and keynote of the Southeastern Land Show, being successfully held in Atlanta, February 1-15, at the immense Auditorium-Armory.

This is the first show of this kind ever held in the South, and the father of the project, Frank T. Reynolds, formerly secretary of the Chamber of Commerce of Chattanooga, and now prominently connected with Atlanta business interests, in an interview said: "For a number of years I have studied every phase of the South's agricultural possibilities through the MANUFACTURERS RECORD. I was in Chicago at several of the land shows held there, and the combination of the facts gathered from both sources inspired me with the idea of letting the people of the country see in real concrete form just what the South can raise."

The show opened with appropriate exercises, the main speaker being John M. Parker of Louisiana, one of the largest cotton planters of the South. The theme of Mr. Parker's speech was that for the South to have permanent prosperity and to be independent of the outside world in matters of food production, the entire farming citizenry must get away from the one-crop idea and plant every crop that the varied soil and climates of the South will support. It was brought out, among other facts, that of the nine climates that exist in the United States, eight are in the State of Georgia, and that every crop in the United States can be raised in the State with the exception of the tropical fruits, which grow to great perfection in the neighboring State of Florida.

There are an unusual number of exhibits from Alabama, Georgia, Florida and South Carolina. Florida has exhibitions of tropical fruits, vegetables, hays, grains and minerals. Florida is making a strong show of its conspicuous facilities for cattle raising. Forage grows in abundance in the State without irrigation or artificial means. Several big deals for lands of this kind have been made during the time that the show has been in progress.

Each State has several representatives in charge of the exhibit representing it, and they are experts along their line. The State of Florida did not have a cut-and-dried program to go by in arranging its exhibit. Samples of crops were taken right from the field and brought to the show just as they were pulled. Cabbage of the biggest variety, excellent celery, tomatoes, potatoes, both Irish and sweet, were exhibited with the original field soil still clinging to them. String beans, spinach, and, in fact, every form of vegetable known were on exhibition, with statistics showing that the cost of production was a mere trifle compared with the enormous profits derived from the sale in the early market, when the remainder of the country, with the exception of irrigated California, is wrapped in ice and snow. The fruits shown included all of the citrus family; oranges, lemons, grapefruit, tangerines and also different varieties of fancy fruits, crossed to make a delicious blend. Bananas of several different varieties were also exhibited. The grain that can be grown in the State at all seasons consists of corn, wheat, oats; the hay crops of timothy, red and purple clover and natural grasses for grazing purposes, that do not require culture. The mineral products of the State as shown by the exhibition consists of lime, silica, mica and a great number of the barytes. The lumber, turpentine and resin of the State were also shown to advantage.

The Alabama exhibit was one of the most interesting ones at the show, and figures and statistics were shown to prove that this State is one of the richest in the Union in point of natural resources. Iron, coal, granite, marble, lumber and other minerals constitute this phase

of the State's exhibit. In the agricultural line, corn, cotton, wheat, oats, rye, various vegetables and sugarcane were on display. Cattle raising has taken an upward movement in that State lately, and there are a great many heads of stock shipped every year. The principal stocks raised are cows and hogs.

The South Carolina people brought cotton, corn, grains, including rice, and a goodly exhibit of minerals. This State, according to the statistics, is an unusually good one for cattle raising, and the tendency to raise stock for the market is on the upward climb.

Georgia has perhaps the most varied exhibit of products. Peaches, apples, pecans and watermelons were among some of the products shown by the State as its main dependencies, to say nothing of the cotton exhibit, which included the long-staple variety. This long-staple cotton was also exhibited by Carolina.

The Georgia exhibit also included minerals of every variety; gold, silver, mica, iron, marble and granite and numerous forms of minerals used in the manufacture of fertilizers. A very fine showing of the clays used in the pottery industry was made. Georgia's cattle-raising facilities were also stressed, and it was shown that in the southern part of the State cattle can be raised as cheaply as anywhere.

The exhibits of the States occupy 20,000 square feet, while the exhibit of the Department of Agriculture of the United States Government occupies 5000 square feet.

The Federal Government was well represented, and had a highly interesting and instructive program mapped out for each day, besides the exhibit which was permanent. The Government featured the raising and care of stock for meat purposes, but the agricultural part did not suffer on this account. The Government exhibit consisted mainly of an educational program for the enlightening of the farmers on any and all subjects that pertained to their betterment, and gave them data on their own land of which they did not dream. Different forms of plows were shown, and their superiority over other makes; the uses of improved machinery for the handling of the land before and after the crops have been made; machinery for more easily handling the crops; the different simple methods of irrigating a piece of land; farm sanitation; the making of the different serums and their uses; how to inject the serums and the care of the animals after treatment. The Government also ran moving pictures to demonstrate the different methods of improved farming.

The gift of land by the Southeastern association to farmers who will raise stock for five years on the land was a striking feature of the show. The land is given absolutely free, without even any fees being charged for the recording, if the farmer proves to the committee that he is financially able to stock the land and make a good showing. Several 50-acre tracts were given away.

One man from Minnesota, attracted by the literature of the show, came South, investigated certain sections of farm lands in Bibb county, bought a large tract and will begin farming by means of overhead irrigation at once.

The railroads of the South became greatly interested in the ideals of the land show, and gave every moral support possible to making this first show a success. The lowest rates that have ever been granted to the public were put on by all the trunk lines east of the Mississippi. The railroads west of the Mississippi refused to grant rates when the show was first taking form, but within the past few weeks they made application to the Trunk Line Association of the East to participate in the low-rate tariff. This request was at once granted, and as a result the show was unusually well attended by farmers and prospectors from the Western States.

It is hoped to make the show an annual occurrence.

J. S. MOORE, JR.

## Improving Facilities for Florida's Automobile Travel.

Jacksonville, Fla., February 4.—[Special.]—One of the most important gatherings that has assembled in Jacksonville for some time will be that of several thousand Dixie Highway enthusiasts, both local and from other States, on Wednesday, February 7, to attend the opening and dedication of the bridge across the St. Mary's River at Folkstone, Ga., commemorating the removal of the last and greatest obstacles that has for years confronted the automobile tourist to and from Florida by this route. The Dixie Highway, central route, via Waycross, Ga., to Jacksonville has been one of the most important of these routes to Florida, inasmuch as the travel comes from the West and Middle West, which supplies a larger number of automobile travelers to the South than any other section, and heretofore the road from Waycross to Jacksonville has been almost impassable at times on account of the swamp territory through which it passes and the thinly populated counties who have not had money enough to improve their roads.

The estimate of the volume of tourist travel to Florida over the Dixie Highway is based on the report made the association by the proprietors of the ferries at Woodbine, Ga., on the eastern division of the Dixie Highway, between Savannah and Jacksonville and at the St. Mary's River on the central division between Macon and Jacksonville. The proprietor of Koler's ferry at the St. Mary's River reported that 2500 cars southbound had crossed the ferry within the past 80 days, and the proprietor of the ferry at Woodbine reported that 2400 cars had crossed his ferry within the same period. It is safe to estimate the number of cars entering Florida over the National Highway, through Cordele and Valdosta, Ga., and the western division of the Dixie Highway via Macon and Thomasville, as 2000 cars this season, totaling 6900 cars traveling the four main routes to Florida.

Each car will average four persons to the car, or 27,600 tourists who have traveled to Florida by automobile this season. It cost these tourists not less than an average of \$5 per day, which on this basis makes these people spend \$138,000 per day just for actual expenses, which does not include tires. For an average of the 20 days it takes these people to make the round trip from their homes in the North to Florida, a total of \$2,760,000 has been sprinkled along the road. This money is all cash, and has never been in circulation in the South before. The South, and especially Florida, is now heeding these figures and is putting her roads in condition for the benefit of the visitors.

## National Builders' Convention in Atlanta February 13-15.

In its sixth year of existence, with a membership of more than 8000 from 63 cities all over the United States, the National Association of Builders' Exchanges will hold its annual convention in Atlanta February 13, 14 and 15.

On each of these days there will be a morning and an afternoon session, six in all, at the convention headquarters in the Piedmont Hotel. Mr. John Trainor of Baltimore, president of the National Association, will call the convention to order at 10.30 on Tuesday morning, the 13th. Speakers of the occasion will be Nat E. Harris, Governor of Georgia; Asa G. Candler, Mayor of Atlanta; Charles Wm. Bernhardt, president the Atlanta Builders' Exchange; John Trainor, president National Association of Builders' Exchanges; John Lawrence Moran of St. Louis, president American Institute of Architects.

Several side trips of interest will be taken by the delegates on the way to the convention and while in Atlanta. Special trains will carry many of the visitors to Atlanta. They will come from all parts of the East and as far West as San Francisco.

## Paper and Sewing Machines for Argentina.

EMILIO GUASCH, Tucuman, Argentina Republic.

I would like to learn of a factory making sewing machines, and also the address of a mill making paper for writing.

# News and Views from Our Readers

## Mineral Activity in Batesville District of Arkansas.

A. A. WEBBER, Secretary the Batesville Board of Trade, Batesville, Ark.

We cannot give you additional information about the proposed smelter to be erected at or near Batesville until the parties who are to build it return from New York.

Our agreement with them is that the citizens of Batesville are to give them a site of 10 acres of land, as may be selected by their representative, and subscribe and pay for \$25,000 in stock at par. This to be paid for when the plant is up and in operation. They have agreed to spend \$200,000 on the plant in addition to our \$25,000. They claim the process of smelting is a new one, the Foss, and that it will smelt any kind of ore and recover 95 per cent. of any metal.

In this (Independence) county we have a large area of manganese lands, possibly 10 miles wide by 24 miles long, which produces the highest grade of ore as well as large quantities of the low grade. We are now shipping from this section an average of 1000 tons of the high-grade manganese per month. (Shippers are Nathan A. Adler, president First National Bank; W. H. Denison, E. C. McComb and R. S. Handford.) Mr. Denison's company, the Independence County Mining Co., is also shipping a large quantity of the lower grades in addition to the high grades.

With this smelter in operation we will have solved the question of manufacturing raw products at home, and thereby reap the benefit of returns from the finished product rather than that from the ore only. This is as it should be.

Messrs. Cooper and Herron and associates propose to put something like \$250,000 into the development of the Independence, Sharp and Lawrence county zinc fields, claiming there are exceedingly large bodies of the highest grade of zinc in that section, and propose to make it one of the largest producing fields in the United States.

They propose to smelt any kind of ore by this new process, which, they claim, can be done for 75 cents per ton. They expect to use the ores from this field as well as from the North Arkansas field (Marion, Baxter, Boone, Searcy and Newton counties), and also draw on the Joplin district.

In addition to the smelter for Batesville, Messrs. Bush, Brown and Clifford of Florida, who are associated with local parties, will commence drilling for oil and gas within sight of Batesville this month. Their rigs will be here about the 15th. Indications are said to be good for both oil and gas.

## Educated to Value of Good Roads and Diversified Farming.

R. F. VANN, Columbia, S. C.

A few years ago the South Carolina State Agricultural College made an appropriation for the use of special agents in educating farmers in diversified farming. The average small farmer in this State at that time was hedged in by the lien laws, fixed deep in the rut of a one-crop system, and was the prey of every other class. Today, where 15 years ago soils were scratched over with a one-horse plow, methods have been changed. Farmers have learned that deep preparation of the soil conserves moisture against the seasons of drought; that it pays to market product slowly, and that a road tax, paid in building and maintaining roads, costs no more than broken vehicles and worn-out mules.

## Wants to Lease Factory.

MOSES, POPE & MESSER, Consulting Engineers  
366 Fifth Avenue, New York.

Clients of ours have asked us to investigate the possibility of leasing a factory or brewery. The process involves grinding and boiling, evaporating and crystallizing.

This means that we would require 10,000 to 15,000

square feet of floor space on each of two floors and a storage shed of about 10,000 square feet of floor area, single floor.

We would need a boiler plant around 250 horsepower and a power plant of 125 horse-power. If the building was equipped with evaporator tanks, power appliances, etc., so much the better.

The plant should be located close to a clear soft, fresh-water supply. The plant should be provided with large yard space for future extensions, and if possible it should have provision for receipt of shipments by water.

The process is non-explosive, non-inflammable, and has no objectionable gases or odors.

It is suggested that a brewery might be a suitable plant if properly located.

We would like to have full information at the earliest possible opportunity, giving (1) description of property, (2) terms on which the property will be leased.

## Most Potent Single Factor in Upbuilding of the South.

J. W. AGEY, President Southern Orchard Co., Knoxville, Tenn.

I cannot longer refrain from at least expressing my appreciation of the valuable service you are rendering the South, and incidentally the whole country, in the publication of the MANUFACTURERS RECORD.

To my mind it is the most potent single factor in the upbuilding of the South.

The editorial in the issue of December 28, 1916, "No Greater Disaster Could Come to Civilization," etc., as well as the editorial in issue of January 25, 1917, "Chimerical, Presumptuous," etc., are masterful, fearless, forceful and timely.

The statistical matter appearing in your publications from time to time is voluminous, interesting and most valuable from an educational viewpoint.

I take pleasure on every proper occasion to speak a good word for the MANUFACTURERS RECORD, hoping thereby to further the interests of a most worthy endeavor.

## Finds Readers Wherever He Goes.

T. E. SMITH, Steam Shovel Engineer, Working Address, Route 3, Camp 3, Macon, Ga.

Your letter of the 22d, addressed to my home address (Wadesboro, N. C.) came in today. In answer, will state that I am a regular reader of the MANUFACTURERS RECORD, and I think that it is the best paper published in the interest of the South. I am a shovel engineer, and everywhere I go I have no trouble in finding someone that is a reader of the MANUFACTURERS RECORD. If you will look on your mailing list you will find my name and address there now, and think that it will continue to be there as long as I can scrape up coin to pay the price (price is all O. K.; should be \$5 instead of \$4).

Hoping you and the MANUFACTURERS RECORD a long, straight run of success in fighting for "the rights of the South," I remain yours for a bigger South.

## A Banker's Appreciation of Service Rendered the South.

A. W. NEWETT, Cashier Bank of Groveland, Inc., Groveland, Fla.

I am handing you herewith our order for the MANUFACTURERS RECORD for the coming year; also a statement of our condition at the close of business on December 30. We have more than doubled our business in the last two years, you will notice.

Your paper was introduced to us less than a year ago, and we appreciate the service you are rendering the South today through its medium. We want to especially commend you on your editorial of a couple of issues back, upon a senseless waste of money spent in idiotic banquets by some of the American people. If the American people, as a whole, would but stop and

think for a moment of the appalling amount spent in wasteful pleasures, or if it was brought to their attention more, we believe a greater portion of this waste would be stopped.

We are glad to place our order for your paper another year, with best wishes for your continued success.

## Utilization of Pine Stumps and Tops.

J. M. MALLORY, Industrial Agent Central of Georgia Railway Co., Savannah, Ga.

In your issue of January 11, page 53, mention is made of the meeting to be held in New Orleans on March 19 to 22 for the purpose of considering ways and means for clearing and utilization of cut-over lands. There is one feature which is not covered by the article, but which will probably be considered in the meeting, and that is the fact that stumps and tops from the cut-over pine lands have a value of \$3 or \$4 per cord, possibly more, in the manufacture of wood turpentine, rosin oil and other products.

## Inspiring as Well as Helpful.

J. W. LANFORD, Lanford Tile & Concrete Co., Greenville, S. C.

We beg to enclose herewith check for \$4 to pay for one year's subscription to the MANUFACTURERS RECORD.

We think that any progressive Southern (or Northern, either, for that matter) business man who does not read the MANUFACTURERS RECORD regularly is missing many times the pleasure and profit that he derives from the small amount he saves by not subscribing. The writer is a young man, and finds the MANUFACTURERS RECORD a great inspiration, aside from its value to his business.

## Helpful in Securing Business.

H. A. LUCAS, Architect, General Contractor, Kimball, W. Va.

Enclosed find check for \$7 to cover past dues and subscription for another year.

I find the information in your magazine a great help to me in locating many different jobs, and if it had not been for the information in the MANUFACTURERS RECORD I firmly believe that I would have not gained entrance to these many different jobs.

Many thanks for your valuable service.

## Enrolls Himself a Champion.

R. E. JOHNSON, Contractor, Memphis, Tenn.

Enclosed please find my check for \$4 to cover subscription to MANUFACTURERS RECORD for a period of one year from expiration of former subscription.

I wish to state that I am a champion of your paper, your business items affording profitable reading and your editorials are thoroughly enjoyable. I wish you continued success.

## Paste-Mixing Machine Wanted.

C. W. RHODES, White & Co., Inc., Bonds, Hanover Bank Building, New York.

I would like the names of manufacturers who make a paste-mixing machine. I am looking for a cheap machine, 5 to 10 gallons capacity, which will mix paste in liquid form, either hand power or electric driven.

## Wants Small Enterprises.

A. G. DAVIS, Mayor, Decatur, Miss.

We need several small enterprises for our town, for which there is a splendid opening, and we want to get in touch with interested parties.



## AMERICA'S VAST FINANCIAL STRENGTH

Bank Resources Now Total Over Thirty-four Billions of Dollars—New York to Contest Financial Leadership of the World.

The annual report of John Skelton Williams, Comptroller of the Currency, has just been submitted to Congress. It is an impressive document, and reveals the tremendous financial strength which has been built up in this country during the last few years almost without observation and certainly without the realization of the masses of the people.

It says that the banking power of the United States as expressed by the input of capital, surplus and profits, deposits and circulation of all banks, amounted on June 30 last to \$29,353,000,000, an increase over the previous year of \$3,956,000,000, or over 15½ per cent.; also the resources of the national banks alone have doubled in 10 years, growing from \$7,670,000,000 in April, 1906, to \$15,520,000,000 on November 17, 1916. Resources of all banks increased in very little more than one year before June 30, 1916, \$4,710,000,000, and of national banks from June 30 to November 17, 1916, \$1,593,337,000, on which latter date estimated resources of all banks was \$34,489,531,000. On June 30 last they were \$32,896,000,000.

In conclusion the report says:

"Since the beginning of the European war, a little over two years ago, our country has passed swiftly and definitely from the ranks of the debtor countries and has become the most potential of the creditor nations. Practically the whole world is in debt to us and steadily increasing its obligations.

"Our financial condition in relation to other peoples and the world at large becomes stronger from week to week and from month to month. As the figures show so conclusively, our wealth is piling up with wonderful rapidity; but to do our proper work in the world and to protect and enlarge our own interests we may before long need every dollar of these resources, gigantic and inexhaustible as they now seem to be.

"From present indications it is probable that we will be required to finance not only our own enterprises, our preparations to make ourselves a formidable and therefore a respected power, and the commerce which is unfolding for us on this hemisphere, but also the endless complications and demands of readjustment and re-establishment that will follow the close of the great war.

"To meet these enormous drafts and strains on our resources, the most tremendous requirements and the widest opportunity that any nation in the world's history has ever faced, we are now strong and ready.

"We have gained in a year and four months, from June 23, 1915, to November 17, 1916, over \$6,000,000,000 in the resources of our banks, counting all banks. This means that we have added to the resources of our banks in this brief space of time an amount exceeding by a billion dollars the entire resources, as recently reported, of those citadels of financial strength the Bank of England and the Bank of France combined. As a further comparison the increase for this period also represents an amount twice as great as the total resources of the Reichsbank of Germany, plus the resources of the Bank of Italy, according to their latest reports.

"We have now the Federal Reserve system, which we believe assures us against panics and fears such as have in the past, at intervals, disturbed our commerce and paralyzed our industries. The Rural Credits, or Federal Farm Loan system, will aid in securing permanent commercial strength and safety based on the sure foundations of prosperous and thriving communities of farmers, held to the soil by ties of ownership and encouraged and aided to secure constantly increasing results per man, per acre, and per day.

"In reviewing our banking and fiscal situation we seem now to be entrenched financially almost as firmly as it is possible for any human government to be. We are well prepared for preparedness, and ready and able to provide for whatever increases of army and navy the Congress may think to be necessary.

"Our preponderating power in world finance is fast being recognized in all countries. As an illustration of the opinions now held abroad as to this country, it may not be amiss to quote in conclusion the following extract from an editorial entitled 'American Banks and

the Future,' which appeared recently in one of the leading English newspapers, the Manchester Guardian:

"European financiers in general would be well advised to face the fact that the war has radically transformed the relations between the United States and Europe. The American Comptroller of Currency in his latest report indicates how greatly American banks have developed in recent years. Their resources on November 17 amounted to 3,104,000,000 pounds. They have grown by 800,000,000 since 1913 and doubled since 1906.

"The Federal Reserve act and other legislation under Mr. Wilson's auspices have given them, for the first time in their history, a really sound organization. The United States has wiped out, or by the end of this war will have wiped out, most of its debt to foreign investors. It will have a currency of unimpeachable soundness, fortified by a gold reserve of unprecedented magnitude.

"The American bankers will have acquired the experience they have hitherto lacked in the international money market. And all this strengthened financial fabric will rest upon an economic fabric which the war will have much expanded. It can hardly be doubted that under these circumstances New York will enter the lists for the financial leadership of the world."

The report recommends that the national bank laws be amended to provide a penalty for making false financial statements for the purpose of obtaining credit from national banks, to provide punishment for breaking and entering a national bank for the purpose of stealing, to limit investments in bank buildings and to authorize the sale of bonds securing circulation 30 days after a bank goes into liquidation.

There are 66,394 officers and employees of national banks, their average salary being \$110 per month. It is recommended that banks consider giving employees who receive small salaries life insurance policies equal to a year's salary.

## Wanted for British Guiana Store.

THE HERALD STORE, 24 Saffron Street, Charlestown, Georgetown Demerara, British Guiana.

I have received your magazine, which is very interesting. I found no dry goods (cloth) manufacturers advertised in it. I have a dry goods store, and am interested in every article in this branch, viz: Ladies' gents' and children's hats, caps and ready-mades; ladies' gents' and children's boots and shoes; gents' underwear; shirts, etc.; cottons; prints; Oxfords; trousers; buttons; thread; staple, fancy and haberdashery and millinery goods in general.

## North Carolina Textile School Doing Notably Important Work.

Raleigh, N. C., January 31.—[Special.]—The textile department of the North Carolina Agricultural and Mechanical College at Raleigh has now the largest class in its history of 25 years, numbering 80. All the students, save one from Massachusetts, are from North Carolina, and represent all parts of the State. The class which will graduate next June is the largest on record, numbering 14, and all its members will have good positions on graduating.

It is interesting to know that this textile department has a larger number of students than any other textile school in the South, and it is quite probable that for cotton manufacturing students it leads the whole country. The demand for its graduates is larger than the supply. It is the plan to make it the best equipped textile school in the United States. Governor Thomas W. Bickett in his recent inaugural address made special reference to this school and to the extreme importance of its work.

This school is now doing something never before attempted by any in the country, as it is offering cotton-mill men, who are actively engaged in that business, courses of study covering six weeks. A mill student is permitted to take up any subject relative to his line of business and to study this in the textile school, theoretically and practically, and he can devote one or two weeks of his time to it.

The textile department at the Agricultural and Mechanical College of Mississippi was abandoned and all its plant has been transferred to the college at Raleigh. The building has also been enlarged and other machinery installed.

## Rome's New Iron Company.

Construction and other improvements are progressing for the developments of the Matthews Iron & Mining Co., recently organized at Birmingham to develop the properties formerly operated by the Silver Creek Furnace Co. at Rome, Ga. The new corporation's main office is at Rome, and it has a capital stock of \$300,000, with the following officers: H. S. Matthews, president; J. W. Porter, vice-president; both of Birmingham; Y. A. Dyer, general manager, Rome. About \$30,000 will be the cost of the furnace betterments (relining, renewals, etc.), and this stock will blow in about April 1 with a daily capacity of 100 tons of special analysis iron, besides basic iron. From \$30,000 to \$40,000 will be expended for mining equipment, two-mile spur track, etc., the daily output of the red iron-ore mines to be from 300 to 350 tons.

## NEW INTERNAL-COMBUSTION OIL-ENGINE FACTORY AT BALTIMORE.



Recently completed plant of the Baltimore (Md.) Oil Engine Co., Eastern avenue and 31st street. B. F. Bennett Building Co., 123 South Howard street, Baltimore, erected the building under contract, the architect being Walter M. Gieske, 65 Gunther Building, and consulting engineer, Henry Adams, 1261 Calvert Building, both of Baltimore. The building is 100x200 feet, of steel, concrete and brick fireproof construction. Internal-combustion oil engines of 5 to 1000 H. P. are to be manufactured. The company was incorporated with \$1,050,000 capital.

# The Iron, Steel and Metal Trades

## BREAK WITH GERMANY SHOCKS STEEL TRADE.

**Sudden Halt Comes to Buying Following Termination of Friendly Relations With Germany—Attitude of Mills as to Prices Unchanged—War Expected to Aid Pig-Iron Situation.**

New York, February 5—[Special.]—The President's move in breaking off diplomatic relations with Germany and the probable, if not inevitable, entry of the United States into the great world war following closely upon the heels of the latest Teutonic submarine note did not exclude the steel and iron industry of this country from its effects. The quick acceptance of the belief that the break would lead to war between the United States and Germany resulted in once more tying up the steel industry in so far as new buying was concerned. Demand had just commenced to improve, following the shock that came with the initial peace notes, and the latest developments, considered of a far more serious nature, acted to undermine confidence to such an extent that suspension of buying was widespread. A week ago the steel trade was contemplating what would happen to it when peace was declared. Now the unexpected has happened. As a prominent member of the steel trade said to the writer the other day, when he heard that the humanitarian peace note of President Wilson had been torn into little pieces and thrown into his face, it recalls an old military air played by the regimental band of Lord Cornwallis when his troops marched out to surrender to General Washington at Yorktown, "The World Is Upside-down."

There is no approach to a consensus of opinion in the iron and steel trades as to what changes in market conditions and prospects will result from the entry of the United States into the European war. The great industrial activity of Japan during the past year was pointed out by some as a criterion, and it is presumed that the United States will adopt the same attitude toward the Central Powers and enter the war in the same way, as the Sunrise Kingdom, but, of course, it is too early as yet to predict what just will happen.

In the great military preparations which the United States will undertake in case of eventualities there is included, of course, the taking over by the American Government of munition plants and other factories for the manufacture of munitions and supplies for an army of 2,000,000 or more men, and converting other plants for this work. Among these will be included the great plants of the Bethlehem Steel Corporation, which is regarded as the second largest in the world in the manufacture of war munitions. What effect this will have upon the production of steel for domestic purposes is problematical at this time.

There was no disposition among sellers of steel late last week, of course, to suggest that no great change will occur in the steel situation. They were quite well satisfied with the conditions previously existing. An effort is made to point out some favorable results marketwise that might follow our entrance into the war, but it is difficult to see how there could be created much fresh demand. The concrete results observed thus far is that there is a great decrease in strictly new inquiry for steel products, while there is no diminution in strong pressure brought to bear upon mills for delivery of material bought prior to Germany's note.

That part of the steel trade most likely to be immediately affected is that of exports. A spirit of great caution was inaugurated by various railroads on Saturday in accepting shipments for export. Some of the roads have placed an absolute embargo upon export freight, while others tightened the restrictions already in effect, which forbid the acceptance of freight for export except in cases where the shippers can show a bona-fide contract for space with a transoceanic steamship company. The Central Railroad of New Jersey is refusing to accept shipments for export. The Lehigh Valley, the Lackawanna, the Erie, the New York Cen-

tral, the Pennsylvania, the Baltimore & Ohio, the New Haven and others are receiving freight under close restrictions.

Notwithstanding the sudden upheaval in the steel trade, the attitude of mill managers with respect to prices remains unaltered. The opinion was that underlying conditions would not change to a sufficient extent to warrant lowering of prices, for a time at least, and many are of the opinion that the disturbance would be short-lived.

The continued briskness of railroad equipment was one of the features of the steel market last week. Demand for rolling stock was very active, but foreign buyers appeared to be unable to close for their requirements.

Buyers of ship plates continued to press negotiations for large tonnages to be delivered in 1918. At the same time plates for delivery in the second half of this year continued in demand. One sale of 13,000 tons plates for last half delivery was made on Saturday at 6 cents Pittsburgh. Foreign demand showed no cessation. Leading manufacturers are no longer disposed to limit 1918 business, but took orders last week at 4.75 cents for universal and sheared tank plates. Lloyd's specifications, 6 cents, is the prevailing quotation.

There was practically no market last week in billets and sheet bars for domestic consumption, while export transactions were limited to a narrow margin. There is no steel to be had, except occasionally for early shipment, while odd lots now and then become available for forward delivery. While the market cannot be quoted closely, everything indicates that it is much nearer \$65 than \$60, and we now quote the market, therefore, at \$65 flat.

The demand for wire products increased somewhat last week, and was described by the mills as being very satisfactory. Sales were limited as usual as to time of delivery, the regular rule being to make sales to jobbers for 60 days ahead only. On account of being behind-hand in deliveries, the mills have had to make some concessions in this matter, but they are trying to follow the rule rather closely at present. On regular wire products it is seldom that any regular sales are made by the mills at premiums. There has been some business of that sort done in the past, but probably not so much as has been reported. The practice is now exceptional as to regular wire products, though certain specialties in wire are bringing premiums quite frequently.

Coming at a time when the volume of new business in the iron market was small, and with furnaces so strongly placed as to forego any desire to stimulate buying, the breaking of diplomatic relations with Germany failed to unsettle conditions to any marked degree. The trend of opinion appears to be that there will not be any lowering of prices. Leading iron producers, who have been negotiating with foreign interests on some large tonnages of Bessemer, reported on Saturday that these dealings had not been suspended, nor was it anticipated that they would abandon their plan of taking iron at this time because of the international situation. To a certain extent the stoppage of exports would benefit domestic iron consumers, as furnaces have been accumulating iron, due to their inability to ship this material to the seaboard, and may now be able to release this tonnage to domestic consumers, who have also been affected by railroad congestion. Should such a condition transpire, the spot demand will naturally cease.

It is considered likely that the growing tendency to cover second half requirements will now halt until the situation clears. Domestic consumers in the past fortnight have shown an interest in second half needs, and some business has been done in this direction. Furnaces are solidly booked, however, for the first half, and hold good orders for the second half, so that no weakness is expected from that quarter, although resale iron may develop some softness due to fears that this country may soon become actively engaged in hostilities.

Western advices on Saturday indicated a fair demand for forward deliveries of pig-iron, with the market showing signs of stiffening. Canadian buyers have again figured in the market at Chicago, while an order for 900 tons high phosphorus was taken by a Tennessee furnace at \$27.05 delivered Toronto. A Bedford (O.)

stove manufacturer closed on Friday for 1000 tons of Iron-ton iron for second quarter and last half delivery.

(Dealers' average buying prices for gross tons.)

Bessemer billets (nominal).....	\$65.00—
Open-hearth billets (nominal).....	65.00—
Open-hearth sheet bars.....	65.00—
Bessemer sheet bars (nominal).....	65.00—
Forging billets.....	80.00—\$85.00
Tank plates.....	75.00—80.00
Steel bars.....	3.75—5.00
Refined iron bars.....	3.25—3.50
Rails.....	50.00—51.00
Steel hoops.....	3.50—
Cold-rolled strip steel.....	6.50—7.00
Sheets, No. 28 gauge.....	4.50—5.00
Galvanized sheets.....	6.50—7.00
Wire nails.....	3.00—
Cut nails.....	3.00—
Plain fence wire, base.....	2.25—
Barb wire, galvanized.....	3.25—
Railroad spikes.....	3.40—

### Pig-Iron.

Bessemer, Pittsburgh.....	\$35.95—
No. 2 foundry.....	30.95—\$32.95
Basic, valley.....	30.95—31.95
Gray forge.....	29.95—30.95
Basic, Philadelphia.....	30.00—
No. 2 foundry, Northern.....	31.75—32.25
Low phosphorus.....	55.00—57.00
No. 2 foundry, Buffalo.....	35.00—
No. 2 South, Cincinnati.....	26.90—27.90
Northern foundry, No. 2 Cleveland.....	30.95—31.95

### Scrap-Iron and Steel.

Heavy melting steel.....	\$22.00—\$23.00
Old steel rails, re-rolling.....	27.00—28.00
Old iron car wheels.....	19.50—20.00
Old steel car wheels.....	26.00—27.00
Steel car axles.....	42.00—43.00
Iron car axles.....	42.00—43.00
Low phosphorus.....	31.00—32.00
No. 1 cast scrap.....	19.50—20.00
Heavy cast scrap.....	18.00—19.50
No. 1 railroad wrought.....	22.00—23.00
Cast borings.....	12.00—12.25
Machine shop turnings.....	12.00—12.25
Railroad malleable.....	19.50—20.00
Stove plate.....	11.00—12.00

## METAL MARKETS WAITING WAR DEVELOPMENTS.

**Tin Soars to Highest Price in Months and Market Is Much Excited—Lead Develops Strength, But Copper and Spelter Are Quiet.**

New York, February 5—[Special.]—The metal markets, with the exception of tin, received President Wilson's message Saturday afternoon and the news of the break with Germany that preceded it on Friday with the same characteristic American calm notable when great crises face the nation. None of the excitement was manifested that occurred after the sinking of the Lusitania, and the President's message to Congress, now known in history as the "Sussex note." The markets, in other words, are awaiting developments.

The proposed blockade of England by German submarines, rather than the prospects of war between Germany and the United States, did more to excite the tin market on Thursday, Friday and Saturday of last week than anything else. The market became actually frightened, and the "news" served to send prices forward very sharply, but at the same time restricted buying. Sellers were not disposed to make quotations, while the few buyers who were in the market for nearby positions recognized the turn of affairs by advancing their bids. The German threat, if effective, will unquestionably interfere very materially with shipments from London, while, of course, shipments would continue to come around the Cape of Good Hope and via San Francisco if the British Government would permit diverting shipments from London to a more direct route. It is believed, however, that as England expects the United States to eventually ally with the Entente, that she will co-operate in the way of tin shipments as much as possible. Such a movement would be almost entirely free from all war risks, and would remove the basis for the present premium prices.

The wisdom of leading consumers in carrying large stocks has once more proved correct. The absence of demand for tin indicates that consumers are well supplied, and are not in the mood to cause further excitement by anticipating requirements well ahead. It is also noteworthy that consumers who have been approached to take a profit of 5 cents or more on resale tin recently purchased have declined to do so even where buyers offered to give later arrivals in place of the spot tin held by consumers. Predictions were freely made in the trade on Saturday that tin would soon reach 60 cents a pound.

Copper, as well as spelter, the two great war metals, were expected to advance sharply in price on the publication of the President's message to Congress, but they did nothing of the kind. The market for the red metal



came to a sudden standstill, and those dealers who had metal available for nearby deliveries, withheld quotations until they could see clearly what this nation was going to do regarding her relations with the Entente Powers. Some buyers were in the market late on Friday in hopes of securing bargains, offering prices from 2 to 3 cents below those of Thursday, but sellers were not in the least interested, and stated that their former quotations remained unchanged.

Producers report increased difficulty in supplying demands of melters throughout the East, who were urging that metal be shipped quickly, or else they would be obliged to close down their plants. Not only are shipments of blister copper interfered with, but even shipments of refined copper are not going forward with anything like dispatch. It is the simplest kind of common sense to foresee that, should the United States enter the European war, the demand for copper will be considerably increased instead of diminished. No matter what happens, England must get our copper, for she cannot continue the war without it. That copper will

also be greatly needed in the manufacture of munitions for our own army (national and volunteer) is also a foregone conclusion. The future of the copper market is, therefore, of the brightest hue, or so all indications point at this time.

The lead market on Friday was thrown into the greatest turmoil by the international crisis. After having steadily advanced to 8½ cents on Thursday, the market reflected weakness on Friday, with buyers who had previously been frantically seeking spot lots withdrawing their inquiries. It was absolutely impossible to obtain prices, as most of the February lead is in second hands, who refused to name quotations.

Naturally, the President's message served to unsettle the spelter market, which has been declining of late. Consumers were not in the market at all on Friday or Saturday, while producers adopted an attitude of waiting for further developments. The situation of the market just now is decidedly clouded, and everyone appears to be inclined to wait to see whether we are going to have actual war with Germany or not.

pally for belting; the Rossman Tanning Extract Co., capital \$200,000; Gloucester Lumber Co., capital \$100,000, and the Brevard Cotton Mills, manufacturer of yarn, with a capital of \$200,000. Within the last few weeks the Transylvania Tanning Co. was incorporated, with a capital of \$250,000, with Joseph L. Silverstein as its president, and he has just started erecting the company's new plant, which will be completed by July 1. He is now purchasing machinery for its equipment.

The Brevard Club, Thos. H. Shipman, chairman of publicity committee would like to get in touch with manufacturers who desire to open branches or change present locations, and will be glad to furnish information as to advantages offered here. I. S. FIELD.

### Georgia Presented as Georgia Is.

The truth about Georgia accurately told, is the aim of a book, "Facts About Georgia," published by the Georgia Chamber of Commerce, Atlanta. A relative stranger to the State, reared in the North and having had wide experience in industrial research, was engaged to write the book that it might be insured against undue partisan praise, which, if present, would rob the work of much of its force. When the issue of such a book was under consideration the members of the Georgia Chamber secured Louis N. Geldert as editor and compiler, with instructions to keep within the bounds of authenticated facts, and wherever in doubt to keep on the safe side, confident that the truth is Georgia's strongest argument. The volume, therefore, is advanced as containing the truth and nothing but the truth, but not all the truth that might be said in favor of the State, for as the editor declares, one might as well try to place the Atlantic Ocean inside a barrel with the aid of a tencup as to attempt to present within the compass of this book the agricultural potentialities of Georgia.

A unique feature of the volume is its shape, which is that of the State about which it is written. The front cover design is a map of Georgia. Cloth-bound, 277 pages, richly illustrated, the book's price is \$1.

Following the publication of the book will be a systematic publicity campaign by the publicity committee of the Georgia Chamber of Commerce, Mr. Geldert to be publicity manager, to disseminate broadly knowledge of the products of the State and the sound opportunities to be met with there.

### Society of Terminal Engineers Formed.

The Society of Terminal Engineers has recently been organized, with headquarters at 1133 Broadway, New York city, for the purpose, among other things, of promoting the study of terminal engineering and mechanical freight handling as a specialty.

The new organization has three grades of membership, viz., members, associate members and juniors. The members grade is open to professors of civil and mechanical engineering and engineers specializing in terminal work. Associate membership applies to officers and others connected with concerns manufacturing freight-handling appliances and terminal equipment, and those whose work and interests enable them to co-operate in the aims of the society. Junior members comprise recent graduates of recognized technical schools who will specialize in terminal engineering and young engineers qualified to fill subordinate positions in terminal work.

The following officers have been elected: President, H. McL. Harding, New York; vice-presidents, Gen. W. H. Bixby, U. S. A., Washington, D. C., and John Meigs, Philadelphia, Pa.; treasurer, W. J. Barney, New York; secretary, J. Leonard, New York.

### The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first six months of the present season was 10,139,217 bales, an increase over the same period last year of 1,157,444 bales. The exports were 3,739,694 bales, an increase of 907,945 bales. The takings were, by Northern spinners, 1,793,425 bales, a decrease of 47,841 bales; by Southern spinners, 3,013,216 bales, an increase of 527,908 bales.

	Copper.		Lead.		Spelter.		Tin.
	Lake.	Electrolytic.	A. S. & R. Co.	Independent.			
Monday, January 29.....	31.75-32.25	32.50-33.50	8.00	8.25-8.37½	10.80-11.05	45.50	
Tuesday, January 30.....	31.75-32.25	32.50-33.50	8.00	8.50-9.00	10.67½-10.92½	45.75	
Wednesday, January 31.....	31.75-32.00	32.50-33.50	8.00	8.50-9.00	10.42½-10.67½	45.85	
Thursday, February 1.....	30.00-32.00	31.00-33.00	8.00	8.25-8.75	9.80-10.05	49.50	
Friday, February 2.....	31.00-32.00	32.00-33.00	8.00	8.00-8.25	9.55-9.80	51.50	

### Strength and Confidence Features of Birmingham Market

Birmingham, Ala., February 6—[Special.]—Receipt of inquiries again and urgent requests for deliveries on old orders give indications in the Southern territory of a need for pig-iron. Some few sales, though in small lots and immediate delivery stipulated, were again made recently at the maximum quotations. The flurry over the war situation has not so far alarmed the manufacturers of pig-iron and steel in this section, and the inquiry as to whether some of the iron sold for export could be transferred to immediate delivery in domestic market encourages rather than otherwise. Not until the official word is received that there is to be a cessation of the foreign movements will any attempt be made in this section to dispose of the iron thus sold heretofore. The quotations in the Birmingham district for pig-iron are still on a basis of \$24 per ton No. 2 foundry and basic for first half of year and \$23 per ton for second half of year. Some of the furnace companies here are evincing but little interest to sell as yet for the second half of the year. While there is no special apprehension being shown, officials of some of the more active iron and steel companies here are waiting the trend of national affairs, expressing confidence there will be no serious harm come to the iron market.

The outward movement of pig-iron in the Southern territory, together with the home consumption; that is, the melt in the home territory during the last 10 days, brought about a material reduction of the accumulated iron on furnace yards. The railroad car situation continues easier, and the shipment of iron in satisfactory lots is now a fact. The production of iron in the Birmingham district is steady. The attractive price being offered for coke, both the foundry and by-product, has brought about sharp conditions in that commodity. During the past week some regular customers were able to renew or make new contracts in this district for coke. In the meantime, there are three iron-making companies in Alabama buying coke to supplement their own production.

Steel operations in the Birmingham district continue at maximum. Production at the Ensley plant of the Tennessee Coal, Iron & Railroad Co. was largest in January for any single month, and all labor has been assured that further development is desired. Unofficial statements are made to the effect that the Tennessee company has sold steel ahead into 1918-19.

Cast-iron pipe foundry operations in the Birmingham district promise further activities as specifications for a considerable tonnage of pipe loom up in sight. High quotations of pig-iron and other products used in the manufacture of pipe eliminate possibility of a reduction in the near future on pipe prices. The melt during the winter at the pipe plants in the immediate Birmingham district this year has been greater than ever before, and the spring season will see a smaller amount of the product on the yards than in the past.

Quotations are given as follows:

#### PIG-IRON.

No. 1 foundry and soft.....	\$24.00 to \$25.00
No. 2 foundry and soft.....	23.00 to 24.00
No. 3 foundry.....	22.50 to 23.00
No. 1 foundry.....	22.00 to 22.50
Gray forge.....	21.00 to 22.00
Basic.....	23.00 to 24.00
Charcoal.....	26.00 to 27.00

#### OLD MATERIAL.

Old steel axles.....	\$35.00 to \$36.00
Old steel rails.....	20.00 to 21.00
No. 1 wrought.....	18.00 to 19.00
Heavy melting steel.....	17.50 to 18.00
No. 1 machinery.....	17.00 to 18.00
Car wheels.....	16.00 to 17.00
Tram-car wheels.....	15.50 to 16.00
Stove plate.....	11.00 to 12.00
Shop turnings.....	9.00 to 10.00

### Big Stone Gap Iron Furnace to Operate Soon.

By March 1 the Interment Coal & Iron Corporation, R. T. Irvine, president, Big Stone Gap, Va., expects to blow in its furnace and have a daily capacity of 150 tons of iron. The reconstruction is progressing rapidly, including extending the old stoves (four) from 35 to 75 feet in height with new installation of boilers, having now a total of 2000 horse-power boilers, modernizing three blowing engines, reconstructing stockhouse, building modern bins for stock, relining furnace stack, installing new dust catcher, etc.

This company owns coal land, coal mines, coke plant, iron-ore lands, etc., all in the immediate field of Big Stone Gap, with an average freight rate of less than 25 cents per ton to assemble materials. It is capitalized at \$500,000, and its organization was announced last year in connection with its plans for these developments.

### Industrial Opportunities in a North Carolina Town.

Brevard, N. C., January 27—[Special.]—This place has a fine situation, with a pleasing environment of natural beauty. A supply of pure clear water, which means much to a community, is here in abundance. The city owns the watershed, and has a supply sufficient to take care of 20,000 people. There are three hotels here, four churches, two graded schools and the Brevard Institution, which will accommodate 150 pupils. The Brevard Banking Co. is one of the substantial institutions, and has a paid-in capital of \$100,000. Splendid opportunities are offered for the establishment of enterprises, especially furniture and other woodworking industries, knitting mills, canning factories and hardwood establishments. There are several very important manufacturing concerns now located here, including the Brevard Tanning Co., manufacturer of tannic acid, which it ships all over the country and exports, with a capitalization of \$500,000; the Carr Lumber Co. mill, of 5000 feet capacity per day, with a capital of \$100,000; Toxaway Tanning Co., manufacturer of leather, princi-

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### RAILROAD AND MINE CONTROL CHANGE

Davis and Elkins Properties Now Financed by a New York Syndicate.

Announcement has been made at Washington of a change of control of the Coal & Coke Railway, the Roaring Creek & Belington Railroad and the Davis Colliery Co. by the estates of the late Henry G. Davis, Stephen B. Elkins and Richard C. Kerens to New York parties. Chas. D. Norton of that city becomes president of the Coal & Coke Railway, but Arthur Lee of Elkins remains as vice-president and C. M. Hendley of Washington continues as secretary and treasurer. Edward D. Kenna, Edward E. Loomis and John L. Kemmerer, all of New York, become directors. The other officers of the road continue in their positions. The Roaring Creek & Belington Railroad is merged with the Coal & Coke Railway.

The coal properties operated by the Davis Coal & Coke Co. are transferred to a new concern, the West Virginia Coal & Coke Co. of Elkins, W. Va., with John I. Kemmerer as president and John T. Davis of Elkins and Messrs. Kenna and Norton as directors. It is understood that the estates retain a minority interest in the several properties.

The new arrangement, it is stated, gives to the companies additional financial strength, and one of the results of the plans is that a connection will be built from Sago to Hampton, W. Va., between the Coal & Coke Railway and the Baltimore & Ohio Railroad, for an interchange of freight. There are already connections between the two roads, but this new one would be of greater advantage. The Coal & Coke Railway is 175 miles long from Elkins to Charleston, W. Va., and the coal lands amount to 100,000 acres.

### BALTIMORE & OHIO EARNINGS GROW.

Six Months' Figures Indicate Over \$122,000,000 for the Year.

The Baltimore & Ohio Railroad Co.'s statement of earnings and expenses for December and the first six months of the company's fiscal year have been issued. During the last half of 1916 the operating revenues averaged more than \$10,000,000 per month and the net more than \$3,000,000 per month. Continued at this rate for the entire year, which ends June 30 next, the total operating revenues will be more than \$122,500,000 and the net operating revenues more than \$36,500,000. If these anticipations are realized the year 1916-17 will be by far the largest as to earnings in the history of the system. The record annual earnings thus far are those for the year 1915-16, when they totaled \$111,668,680.

The figures for the six months' period are: Operating revenue \$61,340,505, increase as compared with the corresponding period of 1915, \$5,300,201; operating expenses \$42,978,893, increase \$5,140,490; net operating revenue \$18,361,612, increase \$159,711. The big growth in operating expenses was in the increased cost of conducting transportation, this charge being \$21,234,297, an increase of \$3,729,011. Other large items were maintenance of way and structures \$7,255,584, increase \$907,486; maintenance of equipment \$11,573,740, increase \$55,771.

The December figures are as follows: Operating revenue \$9,544,592, increase as compared with the same month of 1915, \$379,830; operating expenses \$6,679,265, increase \$140,930; net operating revenue \$2,865,327, increase \$238,900.

### Reconstructing an Important Railroad Bridge.

The Southern Railway Co. is reconstructing the Tennessee River bridge on the Cincinnati, New Orleans & Texas Pacific Railway of its system near Chattanooga. The following description of the work is from the engi-

neering department, of which W. H. Wells, Washington, D. C., is chief engineer of construction.

At present there are two abutments, seven piers and a draw pier, all built for single track. From the abutments to the center of the nearest pier the distance is 210 feet. This is also the distance between all piers with two exceptions, one of them being where the distance between centers is 260 feet and where on one side the distance from center of pier to center of draw pier is 142 feet 3 inches, and on the other side, where the distance from center of pier to center of draw pier is 141 feet 9 inches. This present bridge is a through truss type.

The company is now engaged in rebuilding the masonry so as to make it wide enough for double track. It will also install a new 310-foot fixed double-track truss, which necessitates removing one of the present piers and the building of a new pier. In addition to providing the new 310-foot span, the company is also shortening the present draw span to keep it in operation after construction of the new span.

Eventually the new 310-foot span that is being installed as a fixed span will be converted into a lift span and new double-track spans will be furnished in place of the present single-track spans.

All of the steel work is being done by the American Bridge Co., New York, while the masonry work is being done by M. C. Monday, contractor, of Knoxville, Tenn. Work on the piers on which the new 310-foot span will be erected has been finished, and the bridge company is now engaged in erecting the span.

### PUBLIC SERVICE PLANTS SOLD.

Arkansas Capitalists Obtain Control of Properties at Pine Bluff.

Arkansas interests have bought control of the Pine Bluff Company, which supplies water, electric light and power at Pine Bluff, Ark., and also operates there the street railway properties of the Citizens' Light & Transit Co. The purchasers are W. S. Ribenack of Thornton, Ark., vice-president of the Citizens' Bank of that place and also vice-president of the Bankers' Trust Co. of Little Rock, as well as president of the Stout Lumber Co. of Thornton; H. C. Couch of Arkadelphia, Ark.; Chas. S. McCain, secretary Bankers' Trust Co. of Little Rock; J. H. Meek, banker, Fordyce, Ark.; J. H. Longino of Arkadelphia, and J. H. Watkins, banker, of Memphis and New York. It is said that the company will increase the investment in the properties and will improve them.

The old board of directors includes Henry R. Dennis, vice-president of the Securities Company of New York, and S. C. Stivers, also of that city; F. G. Bridges, B. C. Fowles, Fred Fox and C. H. Triplett of Pine Bluff, and Wm. von Phul of New Orleans. Mr. Bridges, who is president, is reported as saying that there will not be any changes in the management. Mr. Fowles is secretary and treasurer, Mr. Dennis, vice-president. The capital stock, previously \$1,200,000, in equal amounts of common and preferred, was recently increased to \$2,000,000, but it is said that none of the new stock has yet been issued. There are \$700,000 first mortgage 5 per cent. bonds and \$196,000 first mortgage 6 per cent. bonds.

### Tampa-Sarasota Line to Be Built.

There has been considerable talk recently about the construction of a railroad between Tampa and Sarasota, Fla., with several parties looking into the possibilities of the plan, and these preliminaries have resulted in a charter for the Tampa Southern Railroad Co., to construct a line from Tampa or near there to Bradentown, Manatee and Sarasota, about 57 miles, with branches if desired. The Atlantic Coast Line, which does not now enter the Manatee country, is said to be interested in the plan for this line, the incorporators of which are D. C. Gillett, president; W. A. Carter, secretary and treasurer, and E. L. Sparkman, auditor, all of Tampa.

A report from Tampa says that construction of the new road is now certain; that work will begin within two months, and that trains will run by January 1 next. Two preliminary surveys have been made, and one of these will be chosen for the line. One route fol-

lows in a general way the shores of Tampa Bay, but the other is eastward from Tampa to Plant City and thence southward; the latter, it is said, would be less expensive because bridges would not take so much of the money. At present the Seaboard Air Line is the only trunk line reaching Manatee, although the Atlantic Coast Line has a connection there via the East & West Coast Railway at Arcadia, about 50 miles east of Manatee and Bradentown.

### New Yard to Be Built at Westwego, La.

The Transmississippi Terminal Railroad Co., New Orleans, J. A. Shepherd, president and general manager, is figuring on spending about \$150,000 for a new train and classification yard at Westwego, nine miles north of the city, where it now has a small yard and elevators, and where its export grain and cotton business is handled. Under the same plan it is also proposed to remove the shops and roundhouse from Goldsboro, on the Mississippi River immediately opposite New Orleans, to Westwego. The new roundhouse which will be built is to have 15 stalls.

When this new yard is completed it is expected to use it as a "break-up" yard for inbound freight trains and also for a classification yard for outbound trains, as well as for classifying New Orleans business to be handled between Goldsboro and Westwego in switch transfer trains. All of the business of the road, both freight and passenger, is ferried across the river between New Orleans and Goldsboro. No additional grain-handling buildings or elevators are proposed.

It is further contemplated to build a large warehouse on the New Orleans side. This will be in the vicinity of the present inbound and outbound freight house and passenger station, to give more storage space and to also facilitate the handling of cotton, sugar and molasses.

### New Equipment, Etc.

Seaboard Air Line has ordered 10 Santa Fe type and 20 Mallet locomotives from the American Locomotive Co.

Pennsylvania Railroad's locomotive order, which will be filled at its Altoona shops, includes 135 freight engines, 40 passenger engines and 50 switching engines. The car order, also to be filled there, covers 1000 hopper gondola cars of 70 tons, 1000 box and 100 cabin cars. The company will later build at Altoona 68 baggage cars, 20 passenger and baggage cars, 2 baggage and mail cars and 2 milk cars.

St. Louis & San Francisco Railroad has placed an order with the Virginia Bridge & Iron Co. of Roanoke, Va., for a bridge to be built at Cordova, Ala.

Southern Pacific Railroad has ordered 400 tank cars from the American Car & Foundry Co. The company is reported in the market for 41 passenger cars, 31 baggage cars, 6 baggage and mail cars and 5 dining-cars.

Atlantic Coast Line has ordered from the Pullman Company, Chicago, 15 baggage cars, 5 baggage and mail cars and 3 dining-cars.

Surry, Sussex & Southampton Railway has ordered a 10-wheel locomotive from the Baldwin Locomotive Works.

Wheeling & Lake Erie Railway has ordered 5000 tons of rails from the Carnegie Steel Co., Pittsburgh.

### Texas Interurbans Consolidated.

The Texas Electric Railway Co. has been organized at Dallas, Tex., by the consolidation of the Texas Traction Co. and the Southern Traction Co. This unites under one management the interurban electric railway companies north and south of Dallas, with a total of 260 miles of lines reaching from Dallas to Denison and Sherman on the north and to Waco and Corsicana on the south. J. F. Strickland continues as president and Osce Goodwin as vice-president, although there are nine other vice-presidents, including H. I. Gahagan, treasurer, and Burr Martin, general manager. James P. Griffin is secretary. There are being offered in Chicago and New York \$700,000 of 7 per cent. cumulative first preferred stock, and in Chicago, New York and Boston \$1,804,000. Of first and refunding 5 per cent. 30-year bonds, which latter are a direct first mortgage on the



southern line and on the north lines, are subject to the \$2,100,000 bonds of the Texas Traction Co. and the Denison & Sherman Railway. Provision for refunding the latter is made. Bonds may be issued for 75 per cent. of the cost of extensions, etc., provided net earnings are twice the annual interest charge, including bonds applied for.

### Southern Railway Opens New Offices at Charlotte.

The Southern Railway Co., which, as recently announced, will transfer several of its offices from Washington, D. C., to Charlotte, N. C., in accordance with the plan of dividing the system into "Lines East" and "Lines West," has occupied offices in the Commercial National Bank Building and the Piedmont Fire Insurance Building at Charlotte, and these quarters are being placed in use as rapidly as possible. W. N. Foreacre, general manager, now has his office there, and W. M. Cowhig, general superintendent of transportation; E. C. Sasser, superintendent of motive power, and B. Herman, chief engineer maintenance of way and structures, have also located at Charlotte, besides J. A. Jones, superintendent of telegraph, and J. W. Connelly, chief special agent. More than 100 men will be the first instalment of Southern Railway officers and employees transferred from Washington to Charlotte.

### Railroad Bridge Over the Potomac.

Congress has approved the proposition of the Washington & Newport News Short Line Railroad Co. to build a bridge over the Potomac River, the bill, which has passed both Senate and House, providing that the Secretary of War and the Chief of Engineers of the Army shall approve the plans. There will also be bridges over the Rappahannock, the York and the James rivers. Connection is to be made at the boundary of the District of Columbia with the Shepherd branch of the Baltimore & Ohio Railroad, over which its trains will enter and leave Washington.

It is expected that construction will start soon. The line will be about 150 miles long. The survey has been made and about 75 per cent. of the necessary right of way has been obtained, while options are secured on the remainder. Frank S. Gannon, 2 Rector street, New York, is president. Charming M. Ward of Richmond is chief engineer.

### Wheeling to the Monongahela River.

The Wheeling, Ohio & Eastern Railroad Co., which was organized last year with C. B. Hubbard of Wheeling, W. Va., as president, to build a line from that city to the Monongahela River at McCanns Ferry, Pa., about 60 miles, has bought the survey of the Pittsburgh, Connellsville & Wheeling Railroad Co., a concern which was organized 10 or 15 years ago to build to Connellsville, Pa. The rights of this old company, including right of way, are said to have not lapsed, and they can be utilized as far as may be desired for building the line of the new company. J. J. Holloway is vice-president and Thos. Swartz, secretary, both of Wheeling.

### Tremendous Earnings of Pennsylvania System

The Pennsylvania Railroad Co. has issued a statement showing that the gross earnings of the system for the year 1916 totaled \$441,010,417, or an average of more than \$1,200,000 per day. Net earnings were \$109,342,005, or an average of very nearly \$300,000 per day. Gross earnings increased as compared with 1915, \$69,267,973, or 18.6 per cent., and net increased \$20,969,205, or 23.7 per cent. The biggest month of the year was August last, when the gross earnings were \$40,770,228, and the smallest was January, 1916, when they were \$31,596,750.

### Tennessee Central to Be Sold Soon.

The Tennessee Central Railroad is to be sold at noon February 15 at Nashville by E. L. Donk, special master, as a result of foreclosure proceedings. The mini-

mum bid set by the court is \$1,250,000. The road has 342 miles of line. It has been in a receivership since December 31, 1912, as a result of default in payment of interest on its bonds. H. B. Chamberlain and W. K. McAlister are the receivers, the former operating the property.

### Middleton to Jackson, Tenn.

The Gulf, Mobile & Northern Railroad, formerly the New Orleans, Mobile & Chicago Railroad, is inviting bids for the construction of its long-projected extension from Middleton to Jackson, Tenn., 40 miles. They will be opened February 10, and, according to previous reports from headquarters, it will not be long thereafter when construction will begin. R. P. Parker, Southern Hotel, Jackson, Tenn., is in charge.

## Good Roads and Streets

### SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

#### Bonds Voted.

Barnesville, Ga.—City voted \$15,000 bonds to pave streets and sidewalks.

Gulfport, Miss.—City voted \$3500 bonds to complete shell roads.

Hattiesburg, Miss.—Forrest county voted \$100,000 bonds to construct roads.

#### Bonds to Be Voted.

Chester, S. C.—Chester county will vote on \$450,000 bonds to construct roads.

Fairmont, W. Va.—Marion county votes March 7 on \$650,000 bonds to construct 30 miles of road.

Muskogee, Okla.—Muskogee county votes March 6 on \$100,000 bonds to construct road and bridges.

Waco, Tex.—City will vote on \$25,000 bonds to pave streets.

#### Contracts Awarded.

De Queen, Ark.—Polk county awarded contract for 28 miles of road construction.

Gainesville, Fla.—City awarded contract for 15,000 square yards brick paving; cost \$25,000.

Greer, S. C.—City awarded contract for \$50,000 worth of street paving.

St. Petersburg, Fla.—St. Petersburg Investment Co. awarded contract for 1¼ miles of brick paving in Davista.

#### Contracts to Be Awarded.

Decatur, Miss.—Newton county will improve 50 miles of sand and clay roads; \$30,000 available.

Inez, Ky.—Martin county will expend \$10,000 to construct dirt roads.

Parkersburg, W. Va.—City will construct brick paving on concrete base; \$100,000 available.

### Road Bonds for \$650,000.

Extensive highway construction is proposed for Lincoln district of Marion county in West Virginia, and an election to vote on \$650,000 bonds will be held March 7. The Marion county commissioners, county-seat at Fairmont, will be in charge.

### For Oiling 469 Miles of Road.

About 469 miles of highway in various counties of Maryland are to be oiled, and the Maryland State Roads Commission, offices at Baltimore, is inviting proposals. These bids are to be received until February 15, and the estimated quantity of oil is 1,254,499 gallons.

## TEXTILES

### Morristown Blanket Mills

Woolen blankets will be the product of the Morristown (Tenn.) Woolen Mills, which will be organized with a capital of \$50,000. W. H. Mullins is chairman of the promotion committee, and the plant details have been determined. The buildings will be two stories high, of fireproof ordinary mill construction (brick), costing \$10,000, and will be erected by the Morristown Building Co. About \$18,000 will be the cost of the manufacturing equipment, and machinery proposals should be addressed to Edward C. Hall, care W. H. Mullins.

### Hosiery Mill for Anderson.

A daily capacity of 250 dozen pairs of hose, an investment of \$33,000, and possibly \$48,000, and employment of 50 operatives are comprised in the plans of the Hetrick Hosiery Mills of Walhalla, S. C., for a branch plant at Anderson, S. C. A 100x50-foot concrete building will be erected, and this structure will be equipped with 60 knitting machines, electric power drive, etc., costing \$15,000. The architect and engineer in charge is Otto Kaufman of Walhalla.

### To Double Bleaching Capacity.

It has been decided to double the capacity of the Union Bleaching & Finishing Co., Greenville, S. C. The company will build a three-story addition, and it is reported that this structure, with the necessary machinery, will cost \$250,000. J. E. Sirrine of Greenville is the engineer-architect in charge. The company was mentioned in January as planning this enlargement.

### Textile Notes.

Improvements to provide for a large increase of capacity will be undertaken by the Blue Ridge Knitting Co., Hagerstown, Md.

An addition will be built by the Athens (Tenn.) Woolen Mills. This enlargement has been decided upon in order to enable the company to meet increasing demands for its woolen cloth.

An addition (for manufacturing and storage) will be built by the Barnhardt Manufacturing Co., Charlotte, N. C., manufacturer of cotton batts and felts.

Additional new machinery will be installed by the Green Cotton Mills, Gainesville, Ga., now operating 2688 spindles, with accompanying equipment. W. N. Randle of Atlanta recently purchased this plant.

W. B. Davis, Fort Payne, Ala., will organize a \$50,000 company to build a hosiery knitting mill at Kingsport, Tenn. Building plans and specifications will be prepared by W. H. Sears, a Chattanooga architect.

A hosiery knitting company to build a mill is planned by the Mocksville (N. C.) Merchants' Association, Robt. A. Blaylock, secretary-treasurer. Data and prices on machinery are wanted. The organization has \$6000 subscribed for the enterprise.

Data and prices on machinery required for the equipment of a hosiery knitting mill are wanted by the Lillingston (N. C.) Hosiery Mill Co. This corporation was recently chartered with a capital of \$10,000, and its officers are: E. T. Spence, president; A. M. Shaw, vice-president; M. C. Upchurch, secretary-treasurer.

### Antidote for the Blues.

W. S. RENTZ, C. R. Rentz & Co., Dealers in Horses, Mules, Buggies, Wagons and Farm Implements, Varnville, S. C.

You will find herewith check for \$4 for one year's subscription to the MANUFACTURERS RECORD. Think the MANUFACTURERS RECORD is the best booster of our Southern country I ever saw. It is always on the job. Couldn't get along without it, as it is an antidote for the blues and makes me feel rich to read it.

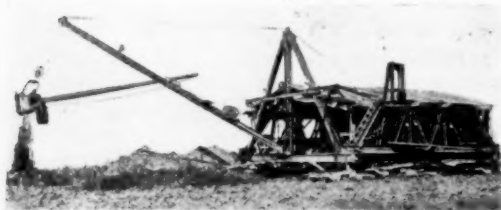
## MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

### Walking Land Dredge.

Contractors engaged in drainage and ditching work will be interested in a new type of land dredge put out by the Bay City Dredge Works, Bay City, Mich. This is a walking dredge using a series of feet for moving ahead on the work.

Four corner feet are attached permanently to the four corners, and two large movable feet are in the center, one on each side. A cable passes over a set of sheaves and attaches to the upright or leg on each side above the middle foot. When the operator is ready to move up on the work he engages the clutches controlling a drum, and as the cable tightens it gives a lifting motion to the entire dredge and transfers the weight from the corner feet to the center feet. When the weight is removed from the corner feet the tension on the move-up cable causes the dredge to move forward over a set of rollers attached to the middle legs and resting under the longitudinal framework. Five to ten feet is made at a shift, the center feet, which temporarily carry the weight of the machine, remaining stationary. When the operator has moved forward the required distance the tension on the cable is released and the dredge settles on the corner feet. The center feet are then pulled forward until the front are flush with the rear end of



RECENTLY DEVELOPED WALKING LAND DREDGE.

the front feet. The feet are then in position for the next step.

This move-ahead motion is comparatively rapid, and an experienced man, it is claimed, can move forward at the rate of two steps in 60 seconds, or across open country from one piece of work to another at the rate of one to two miles in 10 hours.

This walking dredge is claimed to work successfully over rough, marshy, soft or slippery ground. No track, skids or extra planking are required, therefore no track men are used. The increased speed of moving produces larger yardage and lower operating costs. It is designed with special reference to the needs of drainage districts where the yardage per station is small, where there are many laterals or where there are a series of short detached ditches. The manufacturer states it will be possible to move from one section of the work to another with a great deal of speed, cutting out lost time and proportionately increasing the yardage.

A dredge of this type has been in service by the manufacturer during the digging season of 1916 in Northwestern Minnesota, where it has been given a good test. Other machines have since been fitted out in other sections of the country. The accompanying illustration shows the general appearance of the walking dredge when in operation.

### Automatic Spring Coilers.

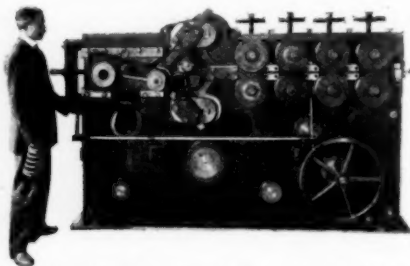
A high-speed automatic Universal spring coiling machine, said to be powerful enough to coil five-eighths-inch oil-tempered wire into a spring of two inches I. D., and able to coil and cut at a speed of about 50 feet of wire per minute, springs open or close coiled, right and left hand, two inches diameter, coned with any degree of taper and with variable pitch, barrel springs with any desired crowning, to taper one or both ends of a spring and lay one or more coils close at one or both ends of any spring, is illustrated herewith, manufactured by Sleeper & Hartley, Inc., Worcester, Mass.

This machine occupies a floor space of 6x8 feet, weighs approximately 18,000 to 19,000 pounds. It

marks the end of a series of Universal spring coilers, beginning with No. 0, handling wire from .004 to .015 inch.

The No. 0, No. 1 and No. 2 Universal coilers are not recommended for the making of close coiled or extension springs, owing to the fact that these machines are not adapted to feed any great quantity of wire into a single spring.

The larger machines are, however, adapted to make either extension or compression springs, and in the case of the No. 4 Universal coiler it is possible to feed as



LARGE UNIVERSAL AUTOMATIC SPRING COILER.

much as 100 feet of wire into a single spring. The machine is automatic, coiling and cutting alternately, the coiling mechanism being stopped while the spring is being cut off.

An interesting feature about these machines is that the spring is not produced by being coiled around an arbor, but by being fed forward by feed rolls against a coiling point or deflector, the machine putting a predetermined amount of wire into each spring. The only function of the arbor is to provide a cutting edge against which the exterior cutter may carry the wire for the purpose of shearing it off after each spring is coiled.

In all these machines adjustments are provided for the feed or amount of wire which can be fed into any one spring, may be changed instantly by means of adjustments provided throughout the machine.

The smaller machines, Nos. 0, 1 and 2, are crank machines, in which the wire feed is regulated by means of an adjustable block carried in the face of a disc, a screw adjustment being provided to change the throw of this crank as desired. In the larger machines, Nos. 2½, 3, 4 and 5, the feed is changed by means of a train of gears, and may be very closely regulated by means of an adjustable cam controlling an automatic clutch. The diameter and contour forming mechanism is controlled by means of a cam, these cams being so designed that only a single cam is needed to produce any kind of a taper spring, and a single pair of cams for producing every variety of barrel-shaped springs. The pitch is controlled automatically, and springs may either be produced with an open spiral or the end coils may be "flatted" or laid close to as great an extent as desired.

In the smaller sizes these machines may be set up for any spring form in from 15 to 20 minutes, and in the larger sizes the machines may be changed over from one spring form to another in one-half to three-quarters of an hour.

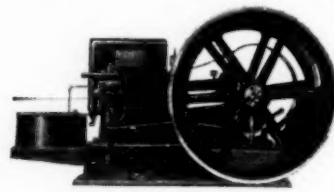
Next to being able to form springs of any desired contour, the greatest advantage claimed from using these machines is in the control of the pitch and being able to produce springs with square ends, thereby eliminating the expensive method of squaring the ends of the springs by heating and pressing.

### Witte Engine Features.

The distinctive points in Witte engines, manufactured by the Witte Engine Works, Kansas City, Mo., are claimed to take it out of the class of the ordinary. It is a four-cycle horizontal engine, which uses fuel only as needed. The cylinder is of semi-steel, and detachable, full water-cooled, and has spherical-shaped combustion chamber to reduce fuel consumption and increase heat radiation. The curved end of cylinder allows greater water compartment space, and expansion is in water jacket. This space is large, with large opening in hopper. The valves are vertical, self-sealing, requiring little or no lubrication. This construction is designed to prevent wear on valve stems. The semi-steel exhaust valve pocket is water-cooled. Automatic superheated fuel mixer is claimed to insure perfect

firing. Firing is accomplished by means of a self-cleaning, sure-firing spark plug, located midway between the valves. In this type of engine there is provided a long-trunk semi-steel piston having four piston rings to insure fuel saving. Crankshaft is drop-forged, heavy I-beam connecting rod. A self-timing attachment, spark advance and retarder permits operator to make all necessary adjustments, either before, or after starting. Governors are of the double weight balanced even-speed type, with self-acting full valve lock on the governor "hook-up" on large valves. There is an automatic electric battery cut out on idle strokes when batteries are used. Bed construction is massive, full length base, supporting full length of cylinders and designed to give a solid footing to the engine. A single rocker side lever is used to control valve operation. It is pivoted in the center, and without lost motion transmits the action of the cam-gear directly to the valves.

These engines are provided with a special damper for easy and quick starting, whether operated with magneto or batteries. Another feature is the crankshaft extension, permitting the use of driving pulley on either side of the engine. Water drains are provided for protection against freezing in cold weather. All gears



WITTE ENGINE.

are cut, and all parts made on the template system, said to insure accuracy of parts and ease of repair in case new parts are needed. Witte engines are built to supply the demand for a medium-priced engine built of high-grade materials, that will take care of a large percentage of work requiring power on belted machinery.

This type of engine is adapted for using such fuels as gasoline, naphtha, natural or artificial gas, distillates, motor spirits, etc. Kerosene is also employed by the addition of a special kerosene vaporizer or mixer.

### Louisiana's New Shipyard Building Ships for Norway.

[From New Orleans District Office, Bureau of Foreign and Domestic Commerce.]

Slidell, La., took its place on the roster of American shipbuilding towns on December 30, 1916, when the steamship Baltic I was launched by the Slidell Shipbuilding Co. This is the first of four wooden steamers contracted for by this company, and is reported to be the largest steamship that has been launched south of Newport News.

The Baltic I and its three sister ships are 220 feet long, 44 feet beam and 19 feet deep in the hold, and will have a carrying capacity of 2000 tons deadweight. They are built on cypress frames, with long-leaf yellow-pine planking and keelsons, and will be equipped with triple-expansion engines of 1000 horse-power. The four vessels originally were to be built for American account, but changed hands twice and are now the property of the Dampskib Aktieselskabet Baltic of Norway. They are built along Norwegian rather than American lines, of very light draft and large cargo capacity. They are expected to make a speed of about eight knots an hour.

The plant of the Slidell Shipbuilding Co. is on Bayou Bonfouca, which enters Lake Pontchartrain, opposite the city of New Orleans. The vessel was launched in the bayou, and will have its boilers and engines installed and be fully equipped to put to sea before leaving the yard. It will then be towed through Lake Pontchartrain and connecting waterways to Gulfport. This route for reaching tidewater overcomes the handicap that has retarded the shipbuilding industry in the neighborhood of New Orleans—the difficulty of obtaining a site for a shipyard not subject to the great fluctuations in water level of the Mississippi River. The present yard is in the heart of the Louisiana long-leaf yellow-pine belt, with supplies of timber immediately at hand that are estimated to be ample for the next 30 years.



## FOREIGN NEEDS

### Coagulation Pans and Latex Buckets.

N. V. L. E. TELS & Co., H. Hyincius, Agent, Soerabaya, Java.

We have the following inquiry, for which we wish to receive offers. We request you to communicate with likely makers, for which please find underneath the necessary details: 1000 coagulation pans, as per sketch herewith, three-coated best enamel, 18 inches long, 9 inches wide, 3½ inches deep, with round corners (not square), inside white, outside dark blue enamel; 1000 latex buckets, with enamel cover, as per sketch herewith, three-coated best enamel, 12 liter actual capacity, inside white, outside dark blue enamel; 1000 latex buckets, same as above, but 16 liter actual capacity.

These quotations we wish to receive, if possible by wire, in the following way: Address, Telscompany, Soerabaya; pans, followed by total price in United States gold dollars, net cash, and net weight of goods in pounds for first item; buckets, followed by total price in United States gold dollars, net cash, and net weights of goods in pounds, for the second and third items, respectively. Quotations to be c. i. f. Soerabaya, if possible, in which case Soerabaya has to be added to cable. Should manufacturers not be willing or in a position to quote c. i. f., ask them to quote f. o. b. San Francisco or New York, in which case they should add to their wire San Francisco, if the prices are to be understood f. o. b. San Francisco, or New York, if quotations are meant f. o. b. New York. In case f. o. b. prices are quoted, state their cable behind the weight for each item; also the measurement of the goods in cubic feet. Finally, they will have to state in their cable the month when shipment can be made. We want goods shipped by direct Dutch steamer only. Two such sailings monthly, one from San Francisco, agents, Spreckels Bros., San Francisco, and one from New York, Funch, Edye & Co., Maritime Building, New York. Unless more expensive, we prefer the first-mentioned route, as rates of freight are lower, and the steamers take less time in transit. Manufacturers shall have to apply for the cheapest through rate via either port. In case of acceptance, we shall open irrevocable credit by wire, in favor of manufacturer, with our financial agents, Goldman, Sachs & Co., 60 Wall street, New York, where they can get reimbursed for the value of their invoice, including prepaid expenses, against their handing full shipping documents.

### Chemicals and Textiles for Sweden.

SVEN WAHLGREN & Co., Tegnérgaten 36, Stockholm, Sweden.

We want to get in touch with great American manufacturers and exporters of various chemicals and textiles that can compete on the Swedish market. We are looking for a few first-class American agencies, and should feel obliged if you could assist us to this effect. We have got excellent connections amongst large consumers and importers of all kinds of chemical and textile products. We are members of the Swedish Chamber of Commerce for the United States of America, Produce Exchange Annex, New York, who are able to furnish some information about our firm.

### Chemicals, Colors, Etc., for India.

PUNJAB NATIONAL TRADING CO., 191 Hornby Road, Bombay, India.

Please inform us the famous chemists of your side, as we are interested in that line as well as in papers, colors, aluminum circles, etc.

### Hat and Watch-Makers' Supplies.

ALBERT NELSON, 9 Salisbury Street, Belfast, Ireland.

I would like to see a copy of your MANUFACTURERS RECORD and hear of your yearly subscription post free to Ireland. Also would give my name and address to the publishers of the Notion and Novelty Buyer, Toys and Novelties and Maryland Historical Magazine; re-

quest them to send sample and rates. I am interested in watch-makers' tools and parts for same; also hat machines, such as hat chucks, hat conformers and such like goods, and I wonder if you know of any American firms making this class of goods. I may be able to give the firms concerned some business worth while.

### For the Trade of Hayti.

EM. JACKSON, Agent, Cape Hayti.

Kindly insert a note in your Bulletin or in the MANUFACTURERS RECORD so that the manufacturers interested in my lines may at once submit samples and take an engagement with me for the sale of their products in Hayti. I desire to represent them, and will charge a commission of 10 per cent. I am more particularly interested in provisions; tobacco; stationery; preserves; canned meat; perfumery; drugs; pianos; organs; buggies, etc.

### For Needs of Spain.

SOCIEDAD GENERAL DE REPRESENTACIONES, J. FERNANDEZ, Secretary, Seccion A. Galdo, 1, Madrid, Spain.

We deal as a specialty in machine tools, and have already various connections with the States, but it is quite possible that we need to get some more in other lines. Should you hear from any manufacturer that he would like to do business in Spain, we would thank you for giving him our address, as we can give plenty of satisfactory references.

### Spain Needs Agricultural Machinery.

JOSE DE LA QUINTANA, Jerez de la Frontera, Spain.

I wish to find a factory making harvesters, reapers and harrows. Holt Manufacturing Co., Stockton, and Best Manufacturing Co., San Leandro, Cal., make this class of machinery, but have an agent in Spain. I suppose there are other factories making this kind of agricultural apparatus, and I should like to get catalogues from them, if possible, to study.

### Aluminum, Metal Goods, Razors, Etc.

MANUEL PEREZ, 75 Obispo, Havana, Cuba.

I have before me the name of "The Republic S. C. Company," makers of gray enameled kitchen ware. Please help me to find the company's address. I shall be glad to have lists of manufacturers of aluminum ware; safety razors; money cases of white metal and German silver; leather card cases and folders; guaranteed washed and plated jewelry.

### For Latin-American Trade.

MARTINUS EVERTSZ, Manufacturers' Representative, Curacao, D. W. I.

I wish to travel for the Latin-American countries. I have acted as local agent of European manufacturers during eight years, which I can mention as references, and also I can furnish some local ones, too. The lines I have handled before are: Cotton goods of all description; earthen and enameled wares; glasswares; silk goods; stationery; shirts; collars; hosiery, etc. I can talk Spanish, English, Dutch and German, and my age is 31.

### Manufactures Wanted for India.

OMRAO SINGH SHADI RAM, Bankers, Etc., 372 Baidwara Street, Delhi, India.

Are interested in the following lines for import: Jewelry, real or imitation; all kinds of silken, woolen and cotton goods; all kinds of silken, woolen, cotton socks, underwears and other articles; toys; buttons; pencils; clocks; watches; rubber drawers; imitation or real ones of gold and silver; having under separate management.

### Soy Bean Oil Increases in Demand and Usefulness.

It is of interest to note that for the 10 months ending with October, 1916, there was imported into this country 119,079,771 pounds of soy bean oil. This was an increase of 103,052,516 pounds over what was imported during 1915.

In other words, there was more than seven times as much imported during the first 10 months of 1916 as came in during the entire year of 1915. This marked increase in the importation of soy bean oil certainly should arouse the Southern cotton-oil mills to the great importance of this product and to their supplying the demand as far as it is practicable for them to do so, according to Mr. C. B. Williams, chief division of agronomy of the experiment station and extension service.

Mr. Williams has prepared 24 specimens, showing the things that, up until the present time, may be obtained from the beans. Some of these things are meal, oil, flour, glycerine, pigment paste, enamel in different colors, lampblack in oil, waterproofing material, linoleum, soft soap, hard soap and soap chips. These materials have been prepared in an attractive exhibit, to show visitors to the experiment station the increasing use of the soy bean.

The Southern cotton-oil mills and Southern farmers should profit by this industry, Mr. Williams urges—the farmer in producing the beans and disposing of them to the oil mills, and the oil mills in crushing the beans and disposing of the oil and meal. The South should see to it, he continues further, that more of their raw materials are manufactured into finished products in order that they may get the largest returns from the products produced here.

### Annual Financial Review Issued.

Mackubin, Goodrich & Co., bankers, 111 E. German street, Baltimore, Md., have issued their annual financial review. It contains the high, low and last quotations for the year 1916, as well as the high and low for 1915, on all stocks and bonds traded in on the Baltimore and New York stock exchanges. Baltimore city's financial statement is also presented therein, with taxable basis, population and other information covering a period of years. Of much interest is the present gross and net debt. After deducting sinking fund and income producing property, the net is but 5.2 per cent. This booklet also contains the rule formulated by the judges of the Supreme Bench governing the investment of all trust funds coming under the jurisdiction of the equity courts of Baltimore.

### Big Lumber Mill for Gulfport.

Definite plans have been determined for the big lumber mill which the Edward Hines Lumber Co. of Chicago decided some time ago to build at Gulfport, Miss. The cutting capacity of the plant will be 500,000 feet per day, and from 700 to 800 men will be employed. Specifications for the construction required is outlined as follows: 312x94-foot main mill; 208x94-foot timber and sizing addition; 500x200-foot planing mill; 800-foot ramps; 96x64-foot box and shook factory; 15 large dry-kilns; 750-foot lumber sorter; 800x300-foot sheds for dressed lumber; 600x400-foot sheds for rough lumber; 7 miles of standard-gauge railway; 25 miles of narrow-gauge railway; steam power plant for general purposes; electric plant for planing mill and other smaller factories; 3 band saws; horizontal band resaw; gang saws; 900x500-foot artificial pond, etc.

### Cotton Oil, Flour and Lard.

COLUMBIAN ROPE CO., Auburn, N. Y.

Following is a copy of letter we have received from Joseph Griesti 158 Strada street, Valletta, Malta:

"Through the MANUFACTURERS RECORD I met with your advertisement, and I request you to forward me the free book, which I will appreciate. I am much interested in importation of flour and American cotton oil and lard. I am seeking to obtain addresses of American firms who would be pleased to enter into business relations with me.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Ark., Horatio.—Sevier County, T. O. Poole, County Judge, De Queen, Ark., and Little River County, Lon T. Jones, County Judge, Ashdown, Ark., will construct bridge over Little River, between Little River and Sevier counties at Greenwood Shoals; bids until March 1; Parkes Engineering Co., Engr., care of Citizens' Bank Bldg., Pine Bluff. (See Machinery Wanted—Bridge Construction.)

Ark., Lake Village.—Chicot County will construct bridges; E. P. Toney, County Judge, adopted plans and specifications for 5 structures; 4 to be of wood, 3 of which will be across drainage canals in Dermott vicinity and 1 across Bayou Macon on Lake Village-Dermott short line road; latter to be 350 ft. long; fifth bridge to be of steel and span Bayou Macon north of Chicot.

Ga., Albany.—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, N. C., applied for municipal franchise to construct steel bridge across Front St. and to narrow street to width of 30 ft. where road's tracks cross street; proposes construction of concrete retaining wall on east side of street and to fill in under portion of track now operated on wood trestle; estimated cost \$15,000.

Okla., Muskogee.—Muskogee County votes March 6 on \$100,000 bonds to construct State bridges and roads. Address County Commissioners.

S. C., Lockhart.—Union County Comrs., Union, S. C., and Chester County Comrs., Chester, S. C., will construct bridge over Broad River at Lockhart Mills; estimated cost, \$24,000; each county to contribute \$9000, and remainder to be secured by special contributions.

Tex., Aransas City.—Aransas Harbor Terminal Ry. will construct 5500 ft. of trestle in connection with rebuilding portion of railway washed out by storm of last August.

Tex., Clifton.—City voted \$160,000 bonds for bridge construction and flood protection. Address The Mayor.

W. Va., Charleston.—Kanawha County, L. C. Massey, Clerk, will construct 175-ft. steel bridge, 16 ft. wide, across Big Sandy Creek; reported to receive bids about Feb. 15; F. G. Burdett, Engr.

W. Va., Huntington.—Chesapeake & Ohio Ry., F. I. Cabell, Ch. Engr., Richmond, Va., will construct undergrade crossing at Tenth St. leading from 7th to 8th Aves.; let contract Board & Duffield Construction Co. at \$41,749.07; in addition railway will contribute work and material amounting to \$33,750.93, making total cost of crossing \$75,500.

### CANNING AND PACKING PLANTS

Fla., Plant City.—H. A. Shaver secured Chapman Bldg. and will equip as cannery; principal product sauer kraut in 50-lb. casks and in cans; daily capacity 12 to 15 tons cabbage; later in season will preserve strawberries.

S. C., Walterboro.—Southern Carolina Canning Co., organized with E. T. H. Shaffer, Prest.-Treas.; I. M. Fishburne, V.-P.; S. L. Red (of Southern Carolina Assn.), Secy.; establish cannery for vegetables and fruits, specializing in tomatoes; daily capacity, 3000 to 5000 cans of products.

S. C., Orangeburg.—Orangeburg Packing Co. buildings will be 200x80 ft.; reinforced concrete and brick construction; daily capacity of plant (cost \$200,000) will be 500 hogs and 150 cattle; receives bids until Feb. 15 on erecting buildings and furnishing plant equipment; reported organized in 1916. (Lately noted inviting bids, plans and specifications being obtainable from Packers Architectural & Engineering Co., Manhattan Bldg., Chicago, and Wilson & Sompayrac, Archts., Palmetto Bldg., Columbia, S. C.)

Tenn., Jackson.—Jackson Assn. of Commerce, S. P. Anderson, Secy., interested in plan to secure establishment of meat-killing and packing plant.

Tex., Waco.—Price-Booker Mfg. Co., of Houston will build branch pickle factory; first factory building to be 50x150 ft.

### CLAYWORKING PLANTS

Tex., Athens.—Pottery.—Athens Pottery Co., capital \$60,000, inceptd. by P. E. Miller, J. E. Miller and P. A. Habel.

### COAL MINES AND COKE OVENS

Ala., Jasper.—Anchor Coal Co., Walter A. Lewis, Prest., will develop coal mines; con-

struct 2 mi. of track and erect camphouses, commissary and office buildings.

Ky., Chavies.—Cornea Coal Corp., capital \$70,000, chartered by Lee Congleton, Coney Congleton, Claude Congleton and E. E. Hogg.

Ky., Four Mile.—Joe Manning Coal Co., Pineville, Ky., will develop 500 acres; machinery supplied; estimated capacity (mines just opened) 100 tons daily; J. L. Manning, Prest. and Mgr.; D. B. Logan, V.-P.; Ben F. Logan, Secy.-Treas.; G. Culpin, Constr. Engr. (Lately noted inceptd., capital \$15,000.)

Ky., Hazard.—Blue Grass Coal Co., S. R. Jennings, Prest., Johnson City, Tenn., will enlarge coal-mining plant, increasing daily output from about 800 to 1000 tons.

Ky., Ida May.—Sturgeon Black Diamond Coal Co., capital \$4000, inceptd. by H. D. Parrish, C. Beach and Rollie Beatty.

Ky., Letcher County.—L. F. and Henry Jackson of Coeburn, Va., purchased 400 acres coal and timber land on Sandlick Creek, in Letcher County, and contemplates development.

Ky., Letcher County.—Letcher County Coal Corp., Lucius F. Cary, Prest., Travelers' Bldg., Richmond, Va., writes to Manufacturers Record: Taken deed to 75,000 acres in Letcher and Knott counties on Rockhouse Fork and Carr Fork of North Fork of Kentucky River; for the present will confine attention to dealing in coal lands. (Lately noted inceptd. with \$500,000 capital.)

Ky., Middlesboro.—Hawley Coal Co., lately noted inceptd., capital \$3000, develops 100 acres; daily capacity 200 tons; Price mine; W. E. Price, Prest.; J. D. Cain, Secy.; Bruce Price, Treas.

Ky., Saxton.—Saxton Blue Gem Coal Co., inceptd. by G. C. Bryant, J. L. Lyons, W. M. Leach and F. F. Walker.

Ky., Wallins.—W. W. Chapman of Northwest Coal Supply Co., Minneapolis, Minn., purchased 1800 acres coal land in Harlan County and will develop; build incline and tipples.

Mo., Brazil.—Brazil Iron & Coal Co., capital \$50,000, inceptd. by J. R. Hammond, N. A. Kennedy and H. L. Burk, all of Kansas City.

Tenn., Knoxville.—Blue Diamond Coal Co. increased capital from \$150,000 to \$200,000, as lately stated; Alex. Bonnyman, Prest., writes to Manufacturers Record: Plans not matured for extensions and additions; give this information as soon as plans are far enough advanced for publication.

Va., Coeburn.—Kilgore Coal Corp. (lately noted chartered, capital \$10,000) will install machinery to develop 200 acres; Lee Kilgore, Prest.-Mgr.; S. G. McCarty, V.-P. and Secy.; C. O. Ramsey, Treas. (See Machinery Wanted—Boiler; Motor.)

Va., Norton.—Hawthorne Coal Co., capital \$50,000, inceptd. by Webb J. Willis, Prest.; C. P. MacDonald, Secy.-Treas.

Va., Wise.—Harlan Coal & Land Co., capital \$100,000, inceptd. by N. B. Dotson, Prest.; N. F. Tausek, Secy.

W. Va., Clarksburg.—Clarksburg Fuel Coal Co., capital \$5000, inceptd. by T. W. Horner, H. K. Carpenter, John M. Newlon and others.

W. Va., Daniels.—L. M. Dorsey of Beckley and Geo. Wolfe of Winding Gulf, W. Va., leased 71 acres coal land and will develop.

W. Va., Elkins.—West Virginia Coal & Coke Co. organized; John L. Kemmerer, Prest., New York; John T. Davis of Elkins, Edw. D. Kenna, Chas. D. Norton and John L. Kemmerer, all of New York, directors; acquires Davis Colliery Co. and other coal property holdings of Coal & Coke R. R. and Roaring Creek & Belington R. R.; continue and increase developments.

W. Va., Fairmont.—Westwood Coal Co., capital \$75,000, inceptd. by H. W. Showalter, Prest.; C. E. Gaskill, V.-P.; H. E. Engle, Secy.-Treas.; will develop 250 acres.

W. Va., Huntington.—Julia Coal Co., capital \$25,000, inceptd. by C. B. Baldwin, J. W. Hagen, Jr., J. G. Nesbit and others.

W. Va., Huntington.—Island Creek Fuel Co. will rebuild coal tippie, at foot of 13th St., reported burned at loss of \$30,000 to \$50,000.

W. Va., Stollings.—Stone-Hurst Coal Co., capital \$5000, inceptd. by G. W. Stone and Sarah A. Stone of Stollings, Frank P. Hurst of Logan, W. Va., and others.

### CONCRETE AND CEMENT PLANTS

Tenn., Bristol.—Cement Bricks.—W. E. Latture is interested in proposed installation of cement-brick machinery. (See Machinery Wanted—Brick (Cement) Machinery.)

### DRAINAGE SYSTEMS

Mo., Chillicothe.—Medicine Creek Drainage Dist., Paul D. Kitt, Secy.-Treas., is having surveys made by Clark E. Jacoby Engineering Co., S. W. Shukert Bldg., Kansas City, Mo., for drainage system.

Mo., Keytesville.—Yellow Creek Drainage Dist., Glen H. Whitman, Secy.-Treas., Whitman, Mo., will have surveys made by Elliott-Harman Engineering Co., Peoria, Ill.

S. C., Anderson.—Six and Twenty Drainage Dist. Comrs. ask bids until Feb. 26 to construct drainage described in Dec.; 16 mi. canals; W. H. Shearer, Engr. and Constr. Supt., Anderson; work previously noted estimated to cost \$26,560. (See Machinery Wanted—Drainage.)

S. C., Kingstree.—Kingstree Swamp Drainage Dist. to be organized; W. K. Wilson, Chrmn. of Com.; will drain area 21x3 mi., comprising lands naturally drained in Broad or Kingstree Swamp from where it enters Black River in Williamsburg County; acreage 41,000; estimated cost of drainage \$47,000; F. G. Eason, U. S. Engr., Columbia, S. C., will submit detailed report.

### ELECTRIC PLANTS

Ala., St. Bernard.—City is having plans prepared by Edgar B. Kay, Engr., Box 151, Cincinnati, Ohio, for power-house equipment and water-softening plant; voted \$90,000 bonds.

Ark., Marshall.—Thos. Matlock purchased Marshall Roller Mill Co.'s electric-light plant and will remove to new location; will install engine and make other improvements.

Ark., Pine Bluff.—W. F. Rinebeck of Thornton, Ark., H. C. Couch of Arkadelphia, J. H. Watkins of New York and Memphis, and others purchased control of electric-lighting, water-works and street railway system; reported to invest additional capital for general improvements, extensions, etc.

Fla., Orlando.—City contemplates voting on \$20,000 bonds for white way and lighting system. Jas. L. Giles, Mayor.

Ky., Butler.—C. E. Record will install lately-noted electric-light plant; 20 H. P. oil engine; 15 K. W. generator; will purchase materials. (See Machinery Wanted—Electric-light Materials.)

Ky., Clay.—Mitchell & Dunnigan (owners of local electric-light plant) contemplates constructing electric transmission line from Clay to Dixon.

Ky., Murray.—City let contract W. E. King of Covington, Tenn., to install electric-light plant; Xavier A. Kramer, Engr., Magnolia, Miss. (Noted in Nov. to have voted \$20,000 bonds for electric-light plant and water-works.)

Mo., Portageville.—J. B. Drerup will rebuild electric-light plant reported burned at loss of \$9000.

Miss., Gulfport.—Mississippi Centennial Exposition Co., John T. Connell, Director of Works, asks bids until Feb. 21 on illuminating system. (See Machinery Wanted—Electric-lighting System.)

Mo., Festus.—Missouri Electric Co., Lockwood and McClure Aves., Webster Groves, Mo., lately reported as purchasing municipal electric-light plant, advises: Simply taken over operation of the plant, and if any changes to be made, will do own construction work.

Mo., Warrensburg.—City contemplates installing electric-light plant. Address The Mayor.

N. C., Pilot Mountain.—C. M. Bernard is interested to secure installation of electric-light and water plant. (See Water-works.)

N. C., Warsaw.—City is considering construction of electric plant, sewer system and water-works; estimated cost \$30,000. Address The Mayor.

Tex., Gatesville.—Gatesville Power & Light Co. will rebuild electric-light plant lately noted burned at loss of \$75,000.

Tex., Port Arthur.—Port Arthur Light & Power Co. will build large addition and in-



stall new machinery for electric generating station; Stone & Webster Engineering Corp., 147 Milk St., Boston, Mass., sends Manufacturers Record following details: Building 37x46 ft. by 50 ft. high; contain turbine-room 45x43 ft. and boiler-room 52x46 ft.; concrete floors and roof supported on structural steel frame; curtain walls of brick; structure supported on wood-pile foundation and served by 40-ton electric-driven traveling crane; circulating water tunnels for supplying and discharging water to condensing plant will be built of concrete, two tunnels 5x6 ft. being installed at this time; erect concrete stack 10 ft. diam. by 200 ft. high, and make steel plate connections to boilers; building designed to house horizontal steam turbine of 400 K. W. capacity with surface condenser and auxiliary pumps; steam will be supplied by two 600 H. P. water-tube boilers arranged for oil burning and equipped with necessary auxiliary pumps for feed-water purposes; switchboard equipment and transformers necessary to make connection to existing service.

## FLOUR, FEED AND MEAL MILLS

Ky., Owensboro.—Anglo-American Mill Co. increased capital from \$500,000 to \$650,000.

N. C., Winston-Salem.—Forsyth Roller Mills Co. increased capital from \$50,000 to \$150,000.

Tex., El Paso.—J. B. Hancock, Las Cruces, N. M., lately noted interested, states company will be incorporated to establish mill with daily capacity 125 bbls. flour, also corn meal, feed, etc., car load daily; erect building of mill construction; cost \$20,000; open building proposals about Feb. 10.

Va., Roanoke.—Roanoke City Mills, Johnson City, Tenn. (present address), inceptd., capital \$250,000; J. W. King, Pres.; D. D. Hull, Jr., V.-P.; M. F. King, Bristol, Va., Secy.; open bids in about 30 days to erect 42x350-ft. building and 42x90-ft. grain elevator of fireproof construction; purchased flour-mill machinery.

## FOUNDRY AND MACHINE PLANTS

Ky., Louisville.—Wrenches, Grain Grinding Mills, etc.—Red Chief Mfg. Co., 704 E. Main St., Louisville, E. Gaiser, Pres., increased capital from \$10,000 to \$15,000, to enlarge manufacturing capacity of automatic wrenches; also manufactures grain grinding mills and corn shellers.

Md., Crisfield.—Machinery.—Crisfield Machine Works will rebuild plant (reported burned at loss of \$50,000) for constructing gas engines, winders and other machinery.

Md., Curtis Bay.—Bolts, Forgings, etc.—Maryland Bolt Co., Mason D. Pratt, Pres., 1303 Continental Bldg., Baltimore, confirms recent announcement; capital \$225,000; take over National Supply Co. plant and thoroughly modernize it to full capacity; install some machinery and enlarge as plans necessitate; manufacture machine bolts, carriage bolts, track bolts in standard sizes from 3/8 to 1 1/2 in., rivets, lag screws and similar products; annual capacity 3000 tons. (Lately noted inceptd., etc.)

Md., Oxford.—Machinery.—Chesapeake Machine Co., capital \$100,000, inceptd. by Geo. M. Wingard, Jos. G. Robertson and Meyer D. Goldman.

Tex., San Antonio.—Welding and Machinery.—Southern Welding & Machine Co. will build plant; 2 stories; 60x110 ft.; reinforced concrete; cost \$12,000.

Va., Richmond.—Structural Steel.—Richmond Structural Steel Co. increased capital from \$100,000 to \$200,000.

Va., Roanoke.—Bridges, etc.—Virginia Bridge & Iron Co. wires Manufacturers Record: Will rebuild burned machine shop; steel and brick construction; fabricate our own steel; our output of bridges and structural steel not affected by fire.

## GAS AND OIL ENTERPRISES

Ala., Mobile.—Alabama Southern Oil Co., capital \$500,000, inceptd. by W. H. Lattermer of Mobile, L. Blovin of Chicago and others.

Ark., Batesville.—Bush, Brown & Clifford of Florida (care Batesville Board of Trade) will develop oil and gas property.

Kentucky.—Oil Refinery.—Kentucky Producing & Refining Co. chartered with \$500,000 capital by A. G. Herrig, W. H. Kendall and M. C. Nuddelman, all of Cleveland, O.

Ky., Irvine.—Kentucky Mountain Oil Co., capital \$50,000, inceptd. by E. H. Taylor, Jr., Ed. Walker, C. W. Hay and John G. South.

Ky., Louisville.—Bolt Drilling Co., capital \$500,000, inceptd. by J. E. Thompson, K. R. Bolt and J. P. Miller.

Kentucky.—Cascade Oil Co., capital \$500, inceptd. by Homer Gray, V. H. Steuart, F. P. Key and others of Charleston, W. Va.

Kentucky.—Bourbon Oil Co., capital \$10,000, inceptd. by V. H. Steuart, F. P. Key, Homer Gray and others of Charleston, W. Va.

Ky., Irvine.—Cumberland Pipe Line Co., Winchester, Ky., will lay additional 4-in. pipe line in Irvine field; after completion of new pipe line will have one 3-in. and 3 4-in. lines in this field with daily capacity of 15,000 bbls. oil.

Ky., Laurel County.—Carolina Operating & Producing Co., capital \$25,000, inceptd. by G. W. Fair, F. R. Conners and W. E. Conners of Charleston, W. Va.; August Kohn and Phil D. Kohn of Columbia, S. C.

La., Alexandria.—Gas Plant.—City contemplates building gas plant. Address Mayor Whittington.

La., Lake Charles.—Pelican State Oil Co., capital \$25,000, inceptd.; L. H. Jastremski, Pres., Houma, La.; R. M. Hereford, V.-P.; I. G. Minuet, Secy.; Joe Jacobs, Treas., all of Lake Charles.

Mo., Kansas City.—Oil Refinery.—Evans-Thwing Refining Co., capital \$1,000,000, inceptd. with Harry M. Evans, Pres.; F. H. Thwing, V.-P. and Treas.; H. G. James, V.-P. and Gen. Mgr.; E. D. Ellison, Secy.; Ira E. Ellis, Supt.; build plant to include refinery, storage tank, tank cars, etc., for refining and otherwise handling oil. (Noted in Dec. as organized.)

Okla., Commerce.—Victor Drilling & Prospecting Co., capital \$500, inceptd. by Ralph Bowsman and Ray O'Dell of Commerce and R. Q. James of Miami, Okla.

Okla., Enid.—Elmdale Oil Co., capital \$45,000, inceptd. by J. E. Smith, F. L. Brimi and H. G. McKeever.

## THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Pages 84 and 85

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

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Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

Okla., Oklahoma City.—Oil Refinery.—Oklahoma Producing & Refining Co. will vote Feb. 19 on increasing capital from \$5,000,000 to \$10,000,000.

Okla., Oklahoma City.—Oil Refineries. Pipe Lines, etc.—Empire Refining Co. (\$20,000,000 capitalization and \$10,000,000 bonds) formally organized by Henry L. Doherty & Co. of New York and Kansas City, Mo.; controls Oklahoma Refining Co. of Oklahoma City, Cushing Refining Co. and Peerless Refining Co. of Cushing, American Refining Co. of Okmulgee, and Ponca Refining Co. of Ponca City, each in Oklahoma, and Producers Refining Co. of Gainesville, Tex.; refineries have daily capacity 30,000 bbls. oil; has 180 mi. pipe line and tankage for 1,250,000 bbls. oil; plans investing \$1,500,000 for laying pipe lines and other improvements; Empire Gas & Fuel Co. (controlling 1,000,000 acres gas and oil land in Mid-Continent field) furnish oil for refineries; Doherty & Co., through Cities Service Co., acquired and continuing to acquire oil refineries, pipe lines, tanks, etc.; last week purchased 3 refineries in Oklahoma and Kansas from Evans-Thwing interests for \$6,000,000; all holdings in Kansas City trade territory. (Lately noted to extend pipe lines, etc.)

Okla., Tulsa.—Grace Oil & Gas Co., capital \$25,000, inceptd. by Geo. W. Edwards of Tulsa, J. A. Bearman, Broken Arrow, Okla., and A. A. Moody of St. Louis, Mo.

Okla., Tulsa.—Homaokla Oil Co. chartered with \$50,000 capital by J. M. Burke, F. Julius Fohs and N. J. Gubser.

Tex., Fort Worth.—Sunset Oil & Gas Co., capital \$50,000, inceptd. by A. Gleason, Fort Worth; T. A. Parker, Boyd, Tex.; T. J. Wren, Ardmore, Okla.

Tex., Georgetown.—San Gabriel Oil Co., capital \$30,000, inceptd. by E. G. Gillett, A. A. Booty, Geo. N. McDaniel and others.

Tex., Houston.—Midcoast Oil Corp., capital \$100,000, inceptd. by J. H. McCracken, C. C. Cannan and J. E. Howell.

Va., Norfolk.—Cortez Oil Corp increased capital from \$50,000 to \$500,000; changed principal office to Richmond.

W. Va., Charleston.—Gas Plant.—Augusta Gas Co., capital \$25,000, inceptd. by Frank R. Hurlbutt, M. R. Mathews, O. J. Morrison and others.

W. Va., Clarksburg.—Clarksburg Crude Oil Co., capital \$250,000, inceptd. by E. H. Bell, Fenner Hart, Chester O. Davison and others.

W. Va., Clarksburg.—Furno Oil Co., capital \$100,000, inceptd. by D. J. Carter, B. B. Jarvis, Harry Sheets and others.

W. Va., Kanawha County.—South Oil Co., capital \$500, inceptd. by H. G. Young, R. E. Hawkins, F. P. Key of Charleston, W. Va., and others.

W. Va., Wellsburg.—Brooke Oil & Gas Co., capital \$10,000, inceptd. by H. A. Stengle, R. R. Merryman, G. W. Davies and others.

## HYDRO-ELECTRIC PLANTS

Mo., Edith.—C. F. Robertson and associates contemplate constructing dam and power plant on Niangua River; plans include 25-mi. railway from Lebanon to Edith; reported cost \$4,000,000.

## ICE AND COLD-STORAGE PLANTS

Ala., Gadsden.—A. C. G. & A. Co. will change system of operating ice plant; purchased and will install 30-ton ice tank; proposed daily capacity, 70 tons.

Ala., Gadsden.—Jones Bros. will erect abattoir and cold-storage plant. (See Miscellaneous Enterprises.)

## IRON AND STEEL PLANTS

Ga., Rome.—Iron Furnace.—Matthews Iron & Mining Co., Y. A. Dyer, Gen. Mgr., writes to Manufacturers Record: Furnace improvements costing \$30,000; include relining, renewals, etc.; blow in about April 1; daily capacity, 100 tons special analysis pig-iron, also basic iron; daily capacity red iron ore mines, 300 to 350 tons; cost of mining equipment and 2 mi. spur track, \$30,000 to \$40,000; using machinery, cars, rails, etc., of former company; H. S. Matthews, Pres.; J. W. Porter, V.-P.; both of Birmingham. (Recently noted organized with \$300,000 capital, buying Silver Creek furnace property, etc.)

Md., Sparrows Point.—Iron Furnaces, Steel Mills, etc.—Bethlehem Steel Co. (W. F. Roberts, V.-P., South Bethlehem, Pa.) has final plans to invest, exceeding \$50,000,000, for additional plants, improvements, extensions, etc., at Penn-Mary branch; outlining construction in progress and planned, Vice-President Roberts advises Manufacturers Record: The 4 additional blast furnaces (each daily capacity 500 tons) located on water-front parallel with 4 old furnaces, each daily capacity 400 tons; total daily output iron, 3800 tons; Ritter-Conley Co., Pittsburgh, has contract for first 2 new furnaces (cost \$1,250,000 each), making total investment for 4 new blast furnaces \$5,000,000; the 240 by-product coke ovens will cost \$5,000,000; in steel plant are installing 4 200-ton tilting furnaces, to operate in conjunction with 3 25-ton Bessemer converters, so entire plant will manufacture Bessemer, open-hearth or duplex steel; usual cranes, mixers, ladles, etc.; also 36-in. reversing slabbing mill and 40-in. blooming mill, contract for latter to Mesta Machine Co. of Pittsburgh; these are roughing mills, and back of them will be 24-in. and 18-in. continuous mills, also purchased; latter will roll billets and sheet bar; purchased 2 plate mills (110-in. and 60-in. universal), and plans are being prepared to add 166-in. plate mill and 3 continuous merchant bar mills; in connection with new blast furnaces install 9 gas engines to drive blowers; makes total of 14 gas engines for blowing furnaces; entirely displace steam power for driving machinery and install electric power throughout entire plant; furnish power from 2 twin electric generators; building additional ways for vessels (700-ft. or 20,000-ton steamship), making 7 shipways at plant; other extensions in progress or contemplated at marine yards; contract to Maryland Dredging & Contracting Co., Baltimore, for dredging ship channel to dock from main ship channel in river, increasing depth from 30 to 35 ft.; also provide 35-ft. depth along side dock; let contract Raymond Concrete Pile Co., New York, to construct concrete facing for dock addition; adjacent to coal dock build coal-handling and coal-crushing plants with combination unloading and storage bridges, costing \$1,250,000; construct Patapsco & Back River R. R., 3/4 mi. long. (Largely heretofore detailed by Manufacturers Record.)

Mo., Poplar Bluff.—Iron Furnace, etc.—Butler Iron Co., H. A. Seward, Engr., The Rookery, Chicago, writes to Manufacturers Record: Our proposition in Butler County, Southeastern Missouri; own and control 10,000 acres iron ore; propose to build charcoal-chemical plant of 100 cords per day capacity and a 50-ton capacity blast furnace; ore-washing and concentrating plant will have capacity 1000 tons or more per day iron ore; total cost of entire plant, \$70,000; buildings will be of wood, some of steel and sheet iron, and some of brick; not ready for taking bids on any work, as plans are not wholly completed; we hope to be in position to go in the market for ore-washing and other equipment in near future. (Lately noted organized with \$2,000,000 capital, W. W. Mechling, Pres., Pittsburgh, etc.)

Tex., Beaumont.—Iron Furnace, Pipe Plant, etc.—Texas Steel Co., L. P. Featherstone, Pres., Keith Bldg., proposes arranging soon to construct plant on waterfront; 200-acre site; build blast furnace with daily capacity 300 tons iron and plant to manufacture cast-iron water pipe, etc., developing into manufacture of cotton bale ties and ultimately to steel rails; mine iron in Upshur, Morris, Cass and Marion Counties; surface mines; corporation's capitalization is \$2,500,000 and it is stated \$1,500,000 has been paid in; T. C. Morgan, V.-P., Longview; C. T. Heisl, V.-P.; S. G. Burnett, Treas.; L. L. Featherstone, Secy., each of Beaumont. (Previously reported chartered, etc.)

Tex., Fort Worth.—Steel Furnaces, etc.—Texas Rolling Mill Co. writes to Manufacturers Record: Installation of open-hearth furnaces, bar and billet mills, etc., has gone

no further than to take form on paper, for it is practically impossible at this time to buy necessary machinery and accessories to operate steel plant; it is certain this steel plant will be built just as soon as machinery and accessories can be had within reasonable time. (Lately noted contemplating replacing steam engines, on roll trains, with electric motors, etc.)

Va., Big Stone Gap—Iron Furnace.—Intermont Coal & Iron Corp. is completing reconstruction noted in Nov.; R. T. Irvine, Pres., advises Manufacturers Record: Work includes reconstruction of stoves, extending 4 old stoves from 35 to 70 ft. in height; replacing horizontal with upright boilers, making total of 2000 boiler H. P.; overhauling 3 blowing engines; rebuilding stock-house and erecting stock bins; relining furnace stack, making dust catcher, etc.; all machinery installed; furnace to blow in not later than Feb. 1, with daily capacity 150 tons. (Previously noted organized, etc.)

W. Va., Wheeling—Iron Furnaces, etc.—Wheeling Steel & Iron Co. meets Feb. 13 to vote on increase of capital from \$7,500,000 to \$10,000,000.

### IRRIGATION SYSTEMS

Okl., Lawton.—Lawton Irrigation Dist. voted to irrigate 2500 acres south of city dam; if land proves subject to irrigation, Government has proposed to take over city dam, raise it to height of 90 ft. and irrigate 10,000 acres. Address Drainage Comms.

Tex., Barstow.—Ward County Irrigation Dist. No. 2 will be organized to construct irrigation system. Address County Comms.

Tex., Harlingen.—Cameron County Irrigation Dist. No. 1, F. H. Brown, Pres., asks bids, to be opened Feb. 6, to construct about 50 mi. canals and laterals; removal about 650,000 yds. earth; A. C. Moudy, office Mgr., advises Manufacturers Record that work on pumping plant, for which contract was noted let, June, 1916, to Robards & Henson, San Benito, Tex., is nearing completion, probably for operation by April 1. (See Machinery Wanted—Irrigation Canals.)

### LAND DEVELOPMENTS

Ark., Bentonville.—Linebarger Bros. Realty Co. (partnership—C. C. Linebarger and F. W. Linebarger), 302 First State Bank Bldg., Dallas, Tex., will develop lately-noted 200 acres at Bella Vista, 4 mi. from Bentonville; all plans drawn and contracts let; improvements include water-works system (ram), hydro-electric system, combination bathhouse and dancing pavilion, dining lodge, summer cottages, driveways, etc.; W. F. Linebarger, Engr. in charge, address Bentonville; summer resort development.

Ark., Kingsland.—Sand Creek Land & Timber Co., capital \$10,000, inctd.; W. L. McLendon, Pres.; John T. Haskins, V.P.; J. W. Elrod, Secy.-Treas.; purchased 1200 acres land in Jefferson County.

Ark., Pine Bluff.—New Era Land Co., capital \$50,000, inctd.; R. Carnahan, Pres.; J. G. Brown, V.P.; G. G. Carnahan, Secy.-Treas.

Fla., Tarpon Springs.—Linn Development Co., capital stock \$50,000, will develop land; construct streets, houses, water front; Alexander Linn, Pres.; Ernest Meres, V.P.; N. A. Van Winkle, Treas.; A. E. Welsh, Secy. (In Nov. noted inctd.)

Ga., Albany.—Arthur Pecan Co., capital \$30,000, inctd. by R. R. Arthur of Albany, C. A. Simpson and R. C. Simpson of Monticello, Fla., will plant 750 acres in Dougherty County in pecans and will grow nuts and seedlings for market.

Md., Easton.—Richard Orchard Farms, capital \$25,000, inctd. by Wm. Mason Shehan, Thos. M. Bartlett and W. Earle Withgott.

N. C. Winston-Salem.—Standard Improvement Co., capital \$50,000, inctd. by C. D. Ogburn, W. F. Schaffner and Jas. O. Cobb.

S. C., Andrews.—Andrews Development Co., capital \$10,000, inctd. by H. S. Parsons and N. W. Cook.

Va., Hopewell.—Magie Land Corp., capital \$50,000, chartered; C. O'Leary, Pres.; Thos. A. Williams, Secy.

Va., Roanoke.—Wasena Corp., 401 First National Bank Bldg., chartered; capital \$100,000; R. R. Fairfax, Pres.; Nat Cordish, V.P.; O. B. Steele, Secy.-Treas.; develop 166 acres; sewer, gas and water already installed; Smith, Bradford & Co., Engrs.

W. Va., Wheeling.—North Park Land Co., capital \$150,000, inctd. by Albert M. and Albert W. Schenk, J. A. Miller and others.

### LUMBER MANUFACTURING

Ala., Millport.—Brainard Lumber Co. inctd. by P. H. Brainard, Rachel Brainard, A. D. Webb and Robt. Cruise.

Ala., Montgomery.—Green Springs Lumber Co., capital \$2000, inctd. by J. E. Howell, F. A. Mills and H. T. Mills.

Ala., Tuscaloosa.—Samuel Lumber Co., B. D. Samuel, Pres., is reported to build sawmill with daily capacity 15,000 ft., planing mill and dry kiln.

Ala., Woodluff.—B. B. Rudolph Lumber Co. (in Jan. noted inctd., capital \$21,000) organized; B. B. Rudolph, Selma, Pres.; John H. Sams, V.P. and Treas.; Hugh Henry, Mgr.; will erect 30x120-ft. building; construction by the company; install machinery, cost \$10,000; daily capacity 25,000 to 40,000 ft. lumber, mainly hardwood. (Also lately noted under Ala., Selma.)

Ark., Little Rock.—Little Rock Lumber & Mfg. Co. will rebuild plant lately noted burned at loss of \$50,000.

Ark., Walnut Ridge.—R. L. Muse Lumber Co., capital \$50,000, inctd.; R. L. Muse, Pres.; Clay Freshette, Secy.-Treas.

Fla., Crystal Springs.—Company organized with J. M. McCloud, Supt. and Mgr., and J. B. Myeller, Secy.-Treas.; will build lumber mill; ordered complete sawmill outfit, including boiler and engine.

Fla., Narcoossee.—Narcoossee Pine Product Co., capital \$10,000, inctd. by J. B. Houser, Earl J. Frank and W. H. Frank.

Ga., Savannah.—Georgia Lumber Vulcanizing Co., capital \$300,000, inctd. by F. B. Gardner of Jacksonville, Fla.; J. H. Burton (Pres. Florida Pine & Timber Co. of Jacksonville, Fla.), New York; C. I. Millard (Pres. John L. Roper Lumber Co.), Norfolk, Va.; Geo. S. Baxter (of G. S. Baxter & Co. of New York and Jacksonville), New York, and others.

Ga., Stillmore.—E. L. Shadrick Lumber Co. will rebuild planing mill lately noted burned at loss of \$10,000.

Ky., Letcher County.—L. F. and Henry Jackson of Coeburn, Va., purchased 400 acres timber and coal land on Sandlick Creek in Letcher county and contemplate development.

Ky., Livermore.—Livermore Timber Co., capital \$3000, inctd. by W. E. Render, C. A. Shaver and K. J. Meyer.

Ky., Offutt.—Rockcastle Lumber Co., First National Bank Bldg., Huntington, W. Va., will rebuild band-saw mill reported burned at loss of \$50,000.

La., Natchitoches.—W. F. Johnson Lumber Co. will rebuild plant; W. H. O'Connell, Engr.

La., New Orleans.—Geier Bros. Lumber Co. will rebuild plant at General Ogden and Poplar Sts., reported burned at loss of \$70,000.

La., Pickering.—Arlunthot & McCain will rebuild sawmill burned at loss of \$3500.

Miss., Columbia.—J. J. White Lumber Co. let contract to Moore Drykiln Co., Jacksonville, Fla., for 2 additional drykilns.

Miss., Gulfport.—Edward Hines Lumber Co., Chicago, accepted plans for lumber manufacturing plant; plans provide for main mill 94x312 ft., with timber and sizing addition 94x208 ft., ramps adding 800 ft. more; artificial pond, 500x900 ft.; box and shook factory, 64x96 ft.; lumber sorter, 75 ft. long; 15 drykilns; planing mill, 200x500 ft.; sheds for dressed lumber, 300x80 ft., and for rough lumber, 400x60 ft.; 7 mi. of standard-gauge and 25 mi. of narrow-gauge railroad on mill-site; mill buildings of concrete, wood and steel construction; lumber-cutting machinery to consist of 3 bandsaws, horizontal band resaw and gang saws; steam and electric power; electricity to be generated at plant's own electric station; daily cutting capacity 500,000 ft. (Noted in November.)

Miss., Meridian.—Meridian Lumber Co. (auxiliary to Chickasaw Lumber Co. of Demopolis, Ala.) advises Manufacturers Record of organized concentration yard and wholesale lumber; D. L. Shertzer, Pres.; D. H. Stubbs, V.P. and Gen. Mgr.; V. B. Naylor, Secy.; company force will build lumber platforms; later contemplates installing reworking plant operated by dynamo.

Miss., Red Lick.—Wood-Russ Lumber Co. organized by W. C. Wood, Collins, Miss., and others; acquired plant of Red Lick Lumber Co.; let contract to Moore Drykiln Co., Jacksonville, Fla., to improve and increase capacity of (2) kilns and to erect additional kiln.

N. C., Brevard.—Moltz Lumber Co. will build band saw mill at head of Lake Toxaway; owns timber land in Sapphire section of Transylvania and Jackson counties; logs

from woods to mill with aerial skidders; has let contracts for cutting tan bark and chestnut wood; also contracted for construction of 16-mi. railway from Lake Toxaway to point near Dobson Mountain, about 1½ mi. from Sapphire.

S. C., Columbia.—Allison Lumber Co., capital \$2500, inctd. by E. L. Allison and E. L. Craig.

S. C., Pamplico.—Dargan Wagoner Co. advises Manufacturers Record: Not rebuilding, but enlarging lately-noted plant; when completed will have daily capacity 60,000 ft. dressed and 100,000 ft. rough lumber; purchased all machinery needed at present; Chas. B. Wagoner, Concord, N. C., Pres.; M. L. Marsh, Concord, V.P.; B. D. Dargan, Secy.-Mgr. (See Machinery Wanted—Chemical Fire Extinguishers.)

S. C., Spartanburg.—Spartanburg Lumber Mfg. Co., organized by G. P. Campbell, L. D. Proffitt and C. O. Pickens.

Tex., Voth.—Keith Lumber Co. is having plans prepared for sawmill to replace burned plant; new mill will have daily capacity 100,000 ft. and cost \$60,000 to \$70,000. (Noted in Jan.)

Va., Lynchburg.—James River Lumber Co., Peoples National Bank Bldg. (in Jan. noted inctd., capital \$50,000), advises will conduct largely a wholesale business, shipping from mills to consumer; contemplates operation of 2 mills—near Farmville, Va. and Cunningham, N. C., with daily capacity 20,000 ft. oak and short leaf pine; A. Lynch Ward, Pres.; M. E. Sweeney, Secy.

Va., Williamsburg.—Bozarth Timber Corp., capital \$100,000, chartered; W. H. Sharp, Pres., Philadelphia, Pa.; W. A. Bozarth, V.P.; Williamsburg, Va.; Eugene W. Fry, Treas.; M. G. Wright, Secy., both of Philadelphia, Pa.

### METAL-WORKING PLANTS

La., New Orleans.—Solder, etc.—National Smelting & Refining Works of Dallas, Tex., will build plant to manufacture solder, printers' type, Babbitt's and other metals; plant 75x100 ft.; warehouse 150x600 ft.

S. C., Anderson.—Files.—Fred Strickland may establish plant to manufacture gummer (circular) files ¼ in. thick and 1½ diam. (See Machinery Wanted—File Machinery.)

S. C., Spartanburg.—Roofing and Sheet Metal.—Pickens Roofing & Sheet Metal Co., inctd. by E. L. Stallings and R. O. Pickens.

Tex., Houston.—Rock-drill Bit.—J. W. Atkins and G. A. Humason of Shreveport, La., contemplate establishing plant to manufacture patented rock-drill bit.

W. Va., Sistersville.—Tanks and Boilers.—Sistersville Tank and Boiler Works, capital \$50,000, inctd. by W. L. Sutton, H. H. Work, Geo. A. Conklin and others.

### MINING

Ala., Birmingham.—Graphite.—Graphite Development Co., capital \$10,000, inctd.; J. H. Malaney, Pres., Dadeville, Ala.; E. R. Owen, V.P.; W. L. Shumate, Secy.-Treas., both of Birmingham.

Ala., Montgomery.—Graphite.—M. T. Davis, 20 N. McDonough St., is interested in contemplated installation of graphite machinery. (See Machinery Wanted—Mining (Graphite) and Milling Machinery.)

Ark., Batesville.—Zinc.—Cooper & Herron (care Batesville Board of Trade) and others contemplate \$250,000 investment to develop Independence, Sharp and Lawrence county zinc fields and to erect smelter. (Noted in January.)

Ark., Everton.—Zinc.—Everton Mining & Development Co., 71 W. 23d St., New York, will develop 240 acres; daily output 150 tons; machinery supplied; concentrating plant, cost \$30,000; J. Migliore, Pres.; Albert Speirs, Treas.; J. Hamilton Mobley, Mgr.; R. K. Boorman, Asst. Mgr. (Lately noted.)

Ark., Mountain Home.—Iron.—S. C. A. Mining Co., Tom Shiras, Mgr., has purchased small equipment of mining machinery for development of 140 acres. (Lately noted to develop iron mines.)

Ark., Yellville.—Morning Star Mining Co., capital \$15,000, inctd.; F. C. Haywood, Pres.; W. A. McCurry, V.P.; Ethel W. Haywood, Secy.-Treas.

Ga., Rome.—Iron.—Matthews Iron & Mining Co., Y. A. Dyer, Gen. Mgr., Birmingham, Ala., plans daily capacity 300 to 350 tons red iron ore; cost of mining equipment and 2 mi. spur track, \$30,000 to \$40,000. (See Iron and Steel Plants.)

Ky., Cadiz.—Iron.—Geo. L. Berry, Chmn. Printing Pressmen & Assistants Union Home, Pressmen's Home, Tenn., writes to Manufacturers Record: Trigg Furnace property

near Cadiz is being prepared for development; ship crude ore to furnaces on Cumberland and Ohio rivers.

Mo., Brazil.—Iron and Coal.—Brazil Iron & Coal Co., capital \$50,000, inctd. by J. R. Hammond, N. A. Kennedy and H. L. Burk, all of Kansas City.

Mo., Fordland.—Lead and Zinc.—Fordland Mining & Royalty Co., capital \$50,000, inctd. by C. C. Sherman, J. S. Bell and J. A. Stafford.

Mo., Joplin.—Lead and Zinc.—King David Mining Co., capital \$40,000, inctd. by C. Taylor, D. W. Friend and W. H. Mierstein.

Mo., Kansas City.—Lead and Zinc.—Blue Rock Mining Co., capital \$50,000, inctd. by J. M. Benn, M. Hansen and L. H. Falley.

Mo., Miami.—Lead and Zinc.—Dewdrop Mining Co., capital \$100,000, inctd. by Washington Adams, Will F. Plummer, W. R. McCain, all of Springfield, Mo., and others; sub-leased 20 acres land and will develop under direction of Will F. Plummer Construction Co. of Springfield, Mo.

Mo., Picher.—Lead and Zinc.—Dewdrop Mining Co., capital \$100,000, inctd. by Washington Adams, Will F. Plummer, W. R. McCain, all of Springfield, Mo., and others; sub-leased 20 acres land and will develop under direction of Will F. Plummer Construction Co. of Springfield, Mo., understood to have plans completed for erection of 200-ton concentrating plant.

Mo., St. Louis.—Lead and Zinc.—Rialto Land & Mining Co., capital \$24,000, inctd. by Thos. H. West, John D. Filley and Berkeley Jones.

Okl., Miami.—Golden Eagle Mining Co., capital \$60,000, inctd. by J. S. McIntyre, W. R. Housley and W. W. Akin, all of Shawnee, Okla.

Tenn., Bluff City.—Lime.—Interstate Lime Corp., capital \$50,000, inctd. by J. R. Delaney, F. H. Perry, W. E. Sams, W. T. Sams and J. R. Lowry, all of Bristol, Tenn.; will develop lime and dolomite deposits near Bluff City; 3-mi. standard-gauge railroad now connecting property with Southern Ry.

Va., Roanoke.—Zinc and Lead.—Roanoke Zinc & Lead Corp., capital \$180,000, chartered; D. M. Taylor, Pres.; W. W. Huff, Secy.; E. M. Funkhouser, Treas.

Va., Shawsville.—Limestone.—The Limestone Co., capital \$100,000, inctd.; A. M. Marye, Pres.; J. L. Vaughan, V.P.; S. C. Sneed, Secy.-Treas.

### MISCELLANEOUS CONSTRUCTION

Fla., Sarasota.—Pier.—City votes Mar. 5 on \$40,000 bonds to purchase lately-noted Main St. pier and arcade building; expend additional \$18,000 to construct new (commercial and recreation) pier and for repairs; use building as a municipal hall.

La., New Orleans.—Bulkhead.—City will construct 380 lin. ft. cross-tied timber bulkhead and drive 24 foundation piling and 22 wharf piling, all at head of New Basin Canal; Board of Control, W. C. Lovejoy, Chmn., New Basin Canal and Shell-road, receives bids until Feb. 21; W. C. Murphy, Supt. (See Machinery Wanted—Bulkhead Construction.)

Md., Baltimore.—Dredging.—Government will dredge Elk river; bids received at U. S. Engr. Office until Mar. 8. (See Machinery Wanted—Dredging.)

Mo., St. Louis.—River Improvements.—Board of Public Service approved plans by Wesley W. Horner, Engr., Street Dept., for elimination of River des Peres by underground passage north of southern boundary of Forest Park and for straightening channel between concrete bank south of park; estimated cost \$6,650,000.

Mo., Warrensburg.—Johnson County contemplates construction of 6½-mi. drainage channel; votes Feb. 9 on \$75,000 bonds. Address County Comms.

Tenn., Nashville.—Swimming Pool.—Park Comms. have plans by Henry C. Hibbs, Nashville, for Pompeian swimming pool at Centennial Park; enclose area 202x73 ft.; walls of asbestos tile covered with stucco on outside and hard cement plaster on inside; building 20 ft. high and along walk about pools will be concrete Doric columns; main pool 120x20 ft.; water depth, 4 to 7 ft.; separated from main pool by concrete walk will be 2 pools (for small children), 2 and 3 ft. deep; bottoms of concrete; pools belted by concrete walkway 10 ft. wide and enclosed by ornamental wood fence; concrete walkways, 12 shower baths, balcony 122 ft. long, with capacity more than 200 persons; shower baths, dressing-rooms, etc., covered with red tile roof; cost \$3000 to



\$10,000; R. T. Creighton of Park Commrs. in charge of constructing pools.

Tex., Clifton—Flood Protection.—City voted \$100,000 bonds for flood protection and bridge construction. Address The Mayor.

Tex., Waco—Swimming Pool.—City contemplates voting on \$25,000 bonds for swimming pool, sanitary sewers and paving. Address The Mayor.

### MISCELLANEOUS ENTERPRISES

Ala., Gadsden—Abattoir.—Jones Bros. will erect abattoir on Black Creek; main building to be 2 stories, brick, and equipped with cold storage and refrigerating equipment; handle and store meats.

Ala., Selma—Incinerator.—City contemplates building garbage incinerator. Address The Mayor.

Ark., Little Rock—Contracting.—Great Lakes Dredging Co., capital \$15,000, incptd.; C. W. Schimmelpfennig, Pres.; T. C. Mullens, V.-P.; J. H. Blair, Secy.-Treas.

Ark., Parkin—Publishing.—Parkin Publishing Co., capital \$1000, incptd. by R. W. Minnie, J. H. Wood, S. W. Sterling and others.

Ark., Plainview—Printing.—Fourche Valley Herald let contract W. A. Brown to erect brick building.

Fla., Orlando—Fire Alarm.—City contemplates voting on \$10,000 bonds for fire-alarm system. Jas. L. Giles, Mayor.

Ga., Atlanta—Engineering.—J. B. McCrary Engineering Corp. chartered with \$150,000 capital by J. B. McCrary and others.

Ky., Irvine—Laundry.—Estill Laundry & Mfg. Co., capital \$30,000, incptd. by H. C. Zeigler, Lee Howell and Mrs. Lena Wallace.

Ky., Louisville—Contracting.—Plattoff & Bush, capital \$5000, incptd. by Harry and Rosa Plattoff and Isadore and Katie Bush.

Ky., Louisville—Blindery.—Printers' Blindery, capital \$3000, incptd. by P. F. Sutterlin, Fred W. Bonte, Victor J. Burger and others.

Ky., Louisville—Printing.—Printers' Printing, capital \$3000, incptd. by P. F. Sutterlin, Fred W. Bonte, Fred Harp and Emil J. Jenne.

Ky., Louisville—Transfer.—Edwards Transfer System, capital \$5000, incptd. by R. G. Edwards, H. C. Moss and W. J. Garabrant.

Ky., Middlesboro—Transfer.—Highgate Transfer Co., incptd. by J. E. Evans, E. C. Helburn and B. E. Haskins.

Ky., Owensboro—Dredging.—Davies County Dredging Co., capital \$6500, incptd. by Elmer Miller, F. F. Kersey and Glenn Hill.

Md., Baltimore—Abattoir.—Edison & Hopkins, 511-515 Calvert Bldg., incptd. with \$50,000 capital by Sam H. Edison, John G. Edison and Sam H. Hopkins.

Md., Baltimore—Contractor.—Fisher & Carozza Bros. Co., 224 E. Biddle St., incptd.; succeeds Fisher & Carozza, Contr.; Antonio Carozza, Pres.; Frank Carozza, V.-P. and Treas.; Jas. H. Leonard, Secy.

Miss., Gulfport—Creosoting.—Gulfport Creosoting Co., capital \$100,000, organized by A. E. Fant, H. M. Rollins and W. A. White to creosote wood products.

Mo., St. Louis—Printing.—Mendle Printing Co., 210 Locust St., leased Cole Bldg. at Eighth St. and Lucas Ave. and will equip as printing plant; 30,000 sq. ft. floor space.

N. C., Thomasville—Printing.—The Times, D. E. Westmoreland, Prop., will erect brick building; equip for newspaper printing plant; cost \$3500.

S. C., Andrews—Hardware.—Tuten Hardware Co., capital \$3000, incptd. by A. K. Parkson and G. M. Tuten.

S. C., Charleston—Printing.—Carolina Press, capital \$12,000, incptd. by R. B. Scarps and Clifford Thompson.

S. C., Columbia—Transfer.—Jones Transfer Co. increased capital from \$10,000 to \$20,000.

S. C., Florence—Tobacco Stemmiery.—M. Rosenfelt will build tobacco stemmiery.

S. C., Florence—Tobacco Stemmiery.—Douglas Martin and others will build tobacco stemmiery.

Tex., Fort Worth—Publishing.—Fort Worth American Publishing Co., capital \$12,000, incptd. by W. K. Dunn, O. S. Lattimore and S. R. McElreath of Fort Worth, and L. W. Dunn of Atlanta, Ga.

Tex., Littlefield—Grain Elevator.—H. G. Tolbert Grain Co., capital \$6000, incptd. by H. G. Tolbert of Littlefield; U. S. Strader, Miami, Tex., and W. E. Gwynn of Woodward, Okla.

Tex., McKinney—Incinerator.—City contemplates installing incinerator; cost \$6000. Address The Mayor.

Tex., Plainview—Electric Supplies, etc.—G. C. Electric Co. (lately noted incptd., capital \$15,000) succeeds Garrison Conner Electric Co.; general electric contracting and wholesale and retail dealing in electrical and automobile supplies; J. F. Garrison, Pres. and Mgr.; J. E. Conner, V.-P.; W. A. Davenport, Secy.

Va., Farmville—Poultry.—Barred Rock Poultry Corp., capital \$10,000, chartered; A. F. Treake, Pres.; A. D. Watkins, V.-P.; Geo. L. Stuart, Secy.-Treas.

Va., Fork Union—Laundry.—Fork Union Military Academy, C. E. Crosland, Pres., may install laundry. (See Machinery Wanted—Laundry Equipment.)

Va., Richmond—Outdoor Display Advertising.—Dixie Poster Advertising Co., capital \$150,000, incptd.; W. W. Workman, Pres., Richmond; K. H. Fulton, Secy., Barney Link, Treas.; both of New York.

Va., Roanoke—Grain Elevator.—Roanoke City Mills, J. W. King, Johnson City, Tenn., Pres., will erect 42x30-ft. grain elevator and 42x350-ft. flour mill. (See Flour, Feed and Meal Mills.)

Va., Wachapreague—Fishery.—Geo. F. Nock Fish Co., capital \$10,000, incptd.; Annie S. Nock, Pres.; Geo. F. Nock, Secy.-Treas.

### MISCELLANEOUS FACTORIES

Ala., Florala—Bottling.—Florala Chero-Cola Bottling Co., capital \$3000, incptd. by W. R. Henderson, T. R. Higdon and J. P. Doster.

Ala., Gadsden—Mattresses.—Nadler Mattress Co. will rebuild mattress factory reported burned at loss of \$14,000.

Ala., Seale—Peanuts, etc.—Seale Peanut Corp., capital \$25,000, chartered by H. T. Benton, T. W. Anderson, R. H. Holland, and others.

Fla., Tampa—Cigars.—Julius Fernbach & Co. of Chicago are reported as contemplating erection of cigar factory.

Fla., Tampa—Automobile Signs and Indicators.—Flecko Automobile Sign & Indicator Co., capital \$25,000, incptd. to manufacture direction indicators for automobiles; V. Flecko, Pres.; C. Lattery, V.-P.; A. Blanco, Treas.; Wm. Humbert, Secy.

Fla., Tampa—Shipbuilding.—Tampa Shipbuilding & Engineering Co., Ernest Kreher, Pres., has plans and specifications for plant 190x150 ft. on Ybor Channel; soon let contracts to construct buildings; has ordered three 200 H. P. crude oil engines and generators, \$80 cu. ft. per min. air compressor, tools, etc.; repair and construct vessels, including steel steamships. (Lately noted incptd. with \$300,000 capital, etc.)

Ga., Macon—Paint.—J. & M. Paint Co., incptd. by M. D. Jacobs and others.

Ky., Henderson—Tobacco.—Hedge Tobacco Co. increased capital from \$120,000 to \$220,000.

Ky., Louisville—Chemicals.—By-Products Co. of Kentucky, capital \$1000, incptd. by Adolph Reutlinger, Barton Fox and Walter S. Lapp.

La., Bossier City—Peanuts.—Bain Peanut Co. will rebuild plant reported burned at loss of \$60,000.

La., New Orleans—Macaroni.—Southern Macaroni & Mfg. Co. purchased 5-story building 91x185 ft. and will remodel and equip to manufacture macaroni.

Md., Baltimore—Steamships, etc.—Butrel Marine Co., 607 Calvert Bldg., incptd. with \$900,000 capital by J. Bannister Hall, Jr., Paul O. Carter and Thos. Swann.

Md., Baltimore—Chocolate.—Churl Chocolate Co., 1611 Eastern Ave., with \$10,000 capital, incptd. by T. John Churl, Boleslaw Mikulski and John T. Szellistowski.

Md., Baltimore—Shipbuilding.—Baltimore Dry Dock & Ship Building Co. will erect building; 1 story; 120x35 ft.; Chesapeake Iron Works, Contr., Westport, Md.

Md., Baltimore—Bakery.—Forrester Baking Co., 622 N. Arlington Ave., incptd. by Wm. E. Myers, Chas. L. Burkhardt and A. Bernard Chancellor.

Md., Baltimore—Clothing.—Parrill Goldsmith Co., 318 N. Exeter St., capital \$12,000, incptd. with \$12,000 capital by Michael Goldsmith, Irvine J. Poland and Morris S. Parrill.

Md., Baltimore—Caps, etc.—E. & E. Specialty Co., 105 W. Baltimore St., incptd. with \$50,000 capital by Morris Elsen, Albert A. Esterson and Isidore Snyder.

Md., Baltimore—Syrup.—Alco Syrup Co., 2003 E. Pratt St., incptd. with \$250,000 capital by Alex. Cohn, S. Ralph Warneken and Rowland K. Adams.

Mo., St. Louis—Lighting Devices.—Day-o-Lite Mfg. Co., capital \$6000, incptd. by Jas.

F. Cook, Guy Wright and Edward A. Kennedy.

Mo., St. Louis—Chemicals, etc.—Mineral Refining & Chemical Corp., A. F. Versen, Gen. Mgr., Railway Exchange Bldg., plans \$1,500,000 expenditure for additional buildings, machinery, etc., to increase capacity for manufacturing chemicals and white paint pigment.

Mo., St. Louis—Macaroni.—American Macaroni Co., 725 Cass Ave., Jos. Treschl, Pres. and Mgr., will build lately noted plant; reinforced concrete construction; 40,000 sq. ft.; open building proposals Sept. 1; A. C. Janni, 24 Broadway, New York, Archt. and Constr. Engr.; will install macaroni machinery, heating plant, drying apparatus; open machinery bids Apr. 1.

N. C., Charlotte—Creamery.—Piedmont Creamery Co., authorized capital \$100,000, incptd. by W. J. Shuford, Geo. W. Wadsworth, R. J. Walker and others.

Okla., Commerce—Ice Cream.—Commerce Ice Cream Co., organized by A. R. Johnson and C. Shifferdecker; erecting 2-story building, 24x39 ft.; lower floor to manufacture ice cream; upper, to manufacture ice cream cones; operate machinery by electricity.

Okla., Oklahoma City—Soldier.—National Aluminum Solder Co., capital \$12,000, incptd. by Frank Swanda, Chas. A. Robinson and G. L. Buck.

S. C., Greenville—Food Products.—The Williams Co. is having plans prepared by J. E. Sirrine, Archt.-Engr., Greenville, for plant to be enlargement of present factory for manufacture of yam nuts, flakes, etc., from sweet potatoes; new building to be of reinforced concrete with fenestra sash; all machinery, white or white enamel; cost of building and equipment, \$50,000 to \$60,000; contemplates using about 100,000 bu. sweet potatoes annually. (Noted in Dec. as organized with \$250,000 capital to continue and enlarge established plant manufacturing yam nuts, etc.)

S. C., Sumter—Rice.—Sumter Roller Mills will install rice mill; ordered machinery.

Tenn., Chattanooga—Paint.—Gilman Paint & Varnish Co. will rebuild plant reported in Jan. as burned at loss of \$30,000.

Tenn., Dyersburg—Ice Cream.—Culver Ice Cream Co., Fulton, Ky., will establish ice cream factory; leased building; ordered machinery.

Tex., Corsicana—Bakery.—Salm Baking Co., capital \$10,000, incptd. by Walter P. Salm, Wayne Brown and R. L. Frazier.

Tex., Dallas—Hygeian Mfg. Co., capital \$26,000, incptd. by E. F. Ballard, A. A. Clarke and H. C. Jarrel.

Tex., El Paso—Locomotive Device.—Company organized with M. B. Bulla, Pres.; H. B. Campbell, V.-P.; F. W. Gurney, Secy.; G. W. Roberts, Treas.; will manufacture electrical automatic stop for locomotives to prevent collisions.

Tex., Fort Worth—Garments.—Texas-Made Garment Co., capital \$10,000, incptd. by F. DeWalch, Joe Petta and Frank S. Petta.

Tex., Nocona—Mattresses.—Nocona Cotton Seed Oil Co., P. R. Braselton, Secy. and Gen. Mgr., contemplates establishment of plant to manufacture mattresses, quilts, etc., from cotton seed lint; capacity 10,000 or more mattresses per season. (See Machinery Wanted—Mattress Machinery.)

Va., Lebanon—Brooms.—Will Howard, R. F. D. No. 2, interested in plan for broom factory. (See Machinery Wanted—Broom Machinery.)

Va., Lebanon—Brooms.—B. F. Howard, R. F. D. No. 2, interested in proposed broom factory. (See Machinery Wanted—Broom Machinery.)

Va., Lynchburg—Overalls.—Jobbers' Overall Co., increased capital from \$50,000 to \$250,000; erect 3-story concrete and steel building with 75,000 ft. floor space; present output 400 doz. overalls daily; proposed capacity 1000 doz. daily; A. C. Barrow, Pres.; H. C. Barrow, V.-P.; E. R. Krebs, Secy.; W. G. McGehee, Mgr.

Va., Richmond—Live Stock Fountains.—Live Stock Individual Drinking Fountain Co., capital \$100,000, incptd.; J. M. B. Lewis, Pres.; R. D. Martin, V.-P.; S. S. Northington, Secy.-Treas.

Va., Richmond—Bakers' and Confectioners' Supplies.—Inverto Co., capital \$5000, incptd.; Leslie T. Stansbury, Pres.; R. S. Christian, Jr., Secy.-Treas.; office at 290 S. 11th St.

Va., Weems—Marine Railways.—Humphreys Marine Railways & Lumber Corp., capital \$25,000, chartered; J. F. Bellows, Pres.; Ocean, Va.; H. R. Humphreys, Gen. Mgr. and

Treas.; Weems; Walter E. Hathaway, Secy., White Stone, Va.

W. Va., Charleston—Salt.—Ohio Cities Gas Co. contemplates manufacturing salt in Cabin Creek district, adjacent to its gas fields; Wm. D. Stoughton, Mgr., writes to Manufacturers Record; Subject still in embryo state.

W. Va., Fairmont—Blasting Powder.—Monongahela Powder Co. (A. R. Rowe and others) purchased 150-acre site in Winfield Dist. on which to build plant to manufacture powder and other explosives to be used mainly for blasting in mines and quarries and in contracting works. (Lately noted incptd. with \$300,000 capital.)

W. Va., Wheeling—Glass.—Anti Glare Glass Co., capital \$20,000, incptd. by Chas. J. Schuck of Wheeling, C. B. Bendell, W. C. Williamson and W. W. Crowl of Martins Ferry, Ohio, and others.

### MOTOR CARS, GARAGES, TIRES, ETC.

D. C., Washington—Garage.—Comms. Dist. of Columbia will erect central garage on D St. between 13th and 13½ Sts., N. W.; bids at office of Secy., Room 500 Dist. Bldg., until Feb. 20; blank proposal forms, specifications and information from Ch. Clk., Engr. Dept., Room 427 Dist. Bldg.

Fla., Tampa—Garage.—J. Q. Brantley let contract Logan Bros. of Tampa to erect garage for Hulsey Automobile Agency; structure will be 70x70 ft.; 3 stories; pressed brick front; cost \$25,000. (Noted in Jan.)

Fla., Tampa—Garage.—M. H. Greeson, owner of Tampa Theater, will remodel theater for garage and store building; offices and showroom on ground floor; garage, with capacity for 40 cars, on second floor; this floor to be reached by concrete incline; repair shop on third floor.

Fla., Tampa—Garage.—D. P. Weeks Co., 1720 Nebraska Ave., let contract to B. F. Walker, Tampa, to erect 80x130-ft. \$3000 fireproof building; will install garage equipment, including lathe, forge, etc., cost within \$1000. (In January noted incptd., capital \$25,000.)

La., Jennings—Garage.—D. D. Daggett let contract Knapp & East of Lake Charles at \$12,200 to erect garage; 141x61 ft.; brick and concrete; asphalt roof; cement floor; electric lighting; plans by I. C. Carter, Lake Charles. (Lately noted.)

Mo., Kansas City—Garage.—John Galbraith will erect garage at 110 N. Elmwood St.; 1 story; cost \$4000.

Mo., St. Louis—Automobile Tire Protector.—Flexo Tire Protector Co., capital \$50,000, incptd. by Raleigh McCormack, O. E. Hentschel and C. L. Bishop.

N. C., Statesville—Garage.—Carolina Motor Co., J. M. Deaton, Pres., will erect 70x150-ft., 1-story-and-basement garage. (See Machinery Wanted—Garage Equipment, etc.)

Okla., Waurika—Garage.—A. E. Landon has plans by and let contract to E. E. Churchill, Fort Worth, Tex., for garage to cost \$8000; mission style. (Noted in Jan.)

S. C., Charleston—Automobiles.—Acme Auto & Repair Co., capital \$10,000, incptd. by Wm. Keach and J. A. Patla.

S. C., Charleston—Automobiles.—Stables Auto Co., capital \$10,000, incptd. by J. H. Staples and A. H. Moore.

Tex., Beaumont—Automobiles.—Gulf Motor Co., capital \$6000, incptd. by M. R. Nownham and T. H. Rees of Beaumont and Ben M. Barker of Austin, Tex.

Tex., Dallas—Garage.—Jas. M. Boyd will erect 1-story brick garage to cost \$6100.

Va., Bedford—Garage.—Peoples Garage, capital \$25,000, incptd.; J. Mott Lindsay, V.-P.; B. A. Rucker, Secy.-Treas.

Va., Norfolk—Garage.—N. Baldwin Bros. will erect garage; 1 story; brick; cost \$7000.

Va., Norfolk—Garage.—Tidewater Garage Corp., capital \$25,000, chartered; C. D. Kelam, Pres.; G. T. Eaton, V.-P.; C. E. Rixford, Secy.-Treas.

W. Va., Warwood—Garage, etc.—Warwood Motor Co., W. J. Schmit, Pres., and Chas. T. Hughes, Jr., Mgr., let contract to B. Imhoff to erect lately-noted garage; 50x70 ft.; stone tile construction; plans by Chas. D. McCarty, National Exchange Bldg.; has equipment of hand tools; later will add lathes, drill presses, etc.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

La., Westwego—Trans-Mississippi Terminal R. R. Co., J. A. Shepherd, Pres. and Gen. Mgr., New Orleans, advises relative to lately-noted construction; figuring on expending

about \$150,000 for new train and classification yard at Westwego; will remove shops and roundhouse from Gouldsboro; new roundhouse to have 15 stalls; also contemplate erection of large warehouse on New Orleans side of R. R. property, for additional storage, and for handling cotton, sugar and molasses.

Mo., Kansas City.—Missouri Pacific Ry., E. A. Hadley, Chief Engr., St. Louis, Mo., will erect brick millhouse, 85x149 ft., in East Bottoms, to cost \$50,000.

Okl., Sapulpa.—St. Louis & San Francisco R. R., F. G. Jonah, Chief Engr., St. Louis, Mo., is reported to build sheds for rebuilding and repairing cars; erect 3 structures and enlarge present one; wood mill machinery to be operated by electricity; train sheds to have capacity of 75 cars; reported estimated cost \$25,000.

### ROAD AND STREET WORK

Ala., Florence.—Lauderdale County will grade and surface with gravel 2 mi. of Jackson Highway, between Florence and St. Florin; State aid; also sub-grade and surface 3 mi. of Florence and Waterloo road west of Oakland; County Commrs receive bids until March 12; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)

Ala., Roonoke.—City will construct 10,400 sq. yds. street paving; bids until March 1; J. P. Liles, Mayor. (See Machinery Wanted—Paving.)

Ark., De Queen.—Comms. Polk County Road Improvement Dist. No. 1 let contract Western Paving Co. of Oklahoma City to construct 28 mi. of road from Polk County line, via Gillham, De Queen and Horatio, to Greenwood Shoals on Little River; also let contract Vincennes Bridge Co. of Vincennes, Ind., to construct bridges; total estimated cost \$140,000; Parkes Engineering Co., Engr., Pine Bluff. (Lately noted inviting bids.)

Fla., Gainesville.—City, G. H. Cairns, City Engr. and Street Commr., let contract to Southern Clay Mfg. Co., Chattanooga, Tenn., to construct 15,000 sq. yds. brick paving; cost \$25,000. (Bids noted in Dec.)

Fla., Orlando.—City contemplates voting on \$90,000 bonds for brick paving. Jas. L. Giles, Mayor.

Fla., St. Petersburg.—St. Petersburg Investment Co. let contract Georgia Engineering Co. of Augusta, Ga., to lay 1 1/4 mi. of brick paving in Davista.

Ga., Barnesville.—City voted \$10,000 bonds to pave streets and \$5000 to pave sidewalks. Address The Mayor. (Lately noted.)

Ga., Marietta.—City will pave city square and its connecting streets for 1 block. Address The Mayor.

Ky., Inez.—Martin County, A. F. Aldridge, Judge, will expend \$10,000 to construct dirt roads.

Ky., Whitley City.—City, lately noted to pave streets at cost of \$30,000, joins the county (McCreary) in road construction; Jesse Wilder, Mayor, advises: State and county are building Dixie Highway, which passes through (main street) Whitley City, and cost of this street's construction has been paid by city to county; upon completion of the road, city will construct sidewalks.

La., Lafayette.—Lafayette Parish votes March 7 on \$300,000 bonds to construct and maintain gravel roads; about 50 mi. gravel roads to be built first and then local roads in wards under supervision of ward committees. Address Police Jury.

La., Pointe a la Hache.—Highway Department, Board of State Engrs. of Louisiana, Room 104, New Orleans Court Bldg., New Orleans, will surface with gravel or clam shell Gretna-Belle Chasse Highway, Plaquemines Parish; 2.5 mi.; bids until Feb. 12; W. E. Atkinson, State Highway Engr., New Orleans. (See Machinery Wanted—Road Construction.)

Md., Baltimore.—City will grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 25, 26, 27, 28, 29, 30, 31 and 32; bids until Feb. 14; R. M. Cooksey, Highways Engr. (See Machinery Wanted—Paving.)

Miss., Ackerman.—Choctaw County will issue bonds to construct road from Ackerman to Weir, Fentress Dist.; F. G. Coleman, Highway Commr., Weir, Miss.

Miss., Decatur.—Newton County, Beat 1, T. H. Shockley, Decatur, official in charge, will improve 50 mi. sand and clay roads; \$30,000 available; engineer not selected.

Miss., Gulfport.—City voted \$3500 bonds to complete shell roads; J. B. McCrary Co., Engr., Atlanta, Ga.

Miss., Hattiesburg.—Forrest County, Beats 1 and 3, voted \$100,000 bonds to construct roads; will improve routes selected through county for Dixie and Jackson Highways. Address County Commrs. (Lately noted.)

N. C., Goldsboro.—City, John R. Higgins, Mayor, contemplates street and sidewalk construction.

Okl., Muskogee.—Muskogee County votes March 6 on \$100,000 bonds to construct State road and bridges. Address County Commrs.

S. C., Barnwell.—City will pave Main St. with concrete or cement. Address The Mayor.

S. C., Chester.—Chester County will vote on \$450,000 bonds to construct roads; accepted report and estimate of L. P. Slattery of Greenville, S. C.

Tex., Waco.—City contemplates voting on \$25,000 bonds for paving, sanitary sewers and swimming pool. Address The Mayor.

W. Va., Fairmont.—Marion County, Lincoln Dist., votes March 7 on \$650,000 bonds to construct 30 mi. of road. Address County Commrs.

W. Va., Parkersburg.—City, T. L. Higgs, City Engr., will construct brick paving on concrete base; \$100,000 available; date of opening bids not set. (Lately noted.)

### SEWER CONSTRUCTION

Ala., Earle.—City retained Kearney-Speed Engineering Co., 1212 Exchange Bldg., Memphis, Tenn., as Consult. Engr. for sewer construction. (Supersedes recent item.)

D. C., Washington.—District Commissioners, Room 509 Dist. Bldg., will construct 6400 lin. ft. pipe line and masonry sewers, 10-in. to 2-ft. 6-in. diam.; bids until Feb. 15. (See Machinery Wanted—Sewer Construction.)

Fla., St. Cloud.—City ordered construction of system; U. S. Sanitary Septic Tank Co., Cotton Exchange Bldg., Memphis, Tenn., writes to Manufacturers Record: We have contract for sewer system and sewer disposal; 18,000 ft. sewer pipe and septic sewage-disposal plant; \$19,000. (Supersedes recent items.)

Ga., Tennesse.—City is having plans prepared by Arthur Pew, Engr., Atlanta, Ga., for sewer system and water-works; cost, \$25,000; W. E. Murchison, City Clk.

Md., Baltimore.—Maryland House of Correction, Bridewell, will expend \$15,000 to construct vitrified pipe sewers, Imhoff tanks, broken stone sprinkling filters; disposal plant capacity, 200,000 gal.; construction by penal labor, supervised by Robt. B. Morse, Engr., 16 W. Saratoga St., Baltimore; will receive bids on materials, including vitrified and cast-iron pipe, broken stone, cement, etc. (See Water-works.)

Miss., Cleveland.—City retained Kearney-Speed Engineering Co., 1212 Exchange Bldg., Memphis, Tenn., as Consult. Engr. for sewer construction.

Miss., Leland.—City's lately-noted construction will include sewer system, pumping station and purification plant; Frank L. Wilcox, St. Louis, Mo., Engr., completed preliminary survey.

N. C., Goldsboro.—City, John R. Higgins, Mayor, contemplates sewer extensions.

N. C., Warsaw.—City is considering construction of sewer system, water-works and electric-light plant; estimated cost, \$30,000. Address The Mayor.

Tex., Athens.—City Council voted \$32,000 warrant issue to construct sewerage plant and enlarge water-works. Address The Mayor.

Tex., Bowie.—Bowie Sewerage Co., capital \$35,000, inceptd. by M. A. Joy, Robt. L. Warren, Anna Hallonquest and others.

Tex., Port Arthur.—City Commrs engaged H. M. Maire, Asst. Engr. State Health Dept., to devise plans to lay sewer main throughout city; cost of additional sewers, \$100,000; (Noted in Nov. to have voted \$100,000 bonds.)

Tex., Eagle Lake.—City is having plans prepared by John A. Norris, Wharton, Tex., for sewer system; cost \$12,000. A. M. McCarty, Mayor.

Tex., Longview.—City will construct lately-noted disposal plant, tank and beds; cost \$15,000; capacity 250,000 gals. daily; H. N. Roberts, City Engr., states plans not out before Nov. 15.

Tex., Waco.—City contemplates voting on \$25,000 bonds for sanitary sewers, paving and swimming pool. Address The Mayor.

### TELEPHONE SYSTEMS

Ky., Louisville.—Cumberland Telephone & Telegraph Co. contemplates erecting 10-story exchange.

N. C., Shore.—Shore Telephone Co., capital \$2500, inceptd. by Geo. Steelman, A. D. Shore, H. F. Shore and others.

Okl., Sapulpa.—Pioneer Telephone & Telegraph Co. will erect exchange; 3 stories; stone and concrete; cost \$38,000; install equipment, including switchboard, to cost \$70,000.

Tex., Dallas.—Dallas Automatic Telephone Co., E. M. Powell, local Mgr., Jackson and Harwood Sts., advises Manufacturers Record regarding lately-noted increased expenditures of \$1,000,000 to \$2,000,000 for improvements: Not contemplating expending this amount at present time.

Tenn., Union City.—Union City Independent Telephone Co. changed name to Obion County Telephone Co. and increased capital from \$9800 to \$50,000.

Tex., Houston.—Western Union Telegraph Co., J. D. McLelland, Local Mgr., is reported to expend \$20,000 for extension in local office.

Tex., San Antonio.—Southern Telephone Co. will build branch exchange; reported to be 2 or 3 stories and cost \$20,000 to \$35,000.

### TEXTILE MILLS

Ga., Gainesville.—Cotton Yarn.—Green Cotton Mill contemplates installing additional machinery to increase capacity of plant; has 2688 spindles and daily capacity of 2000 lbs. yarn.

Md., Hagerstown.—Blue Ridge Knitting Co. will improve plant and increase capacity.

N. C., Charlotte.—Cotton Batts and Felts. Barnhardt Mfg. Co. will erect addition to plant for manufacturing and storage.

N. C., Lillington.—Hosiery.—Lillington Hosiery Mill Co. (lately noted inceptd. with \$10,000 capital) organized; E. T. Spence, Pres.; A. M. Shaw, V.-P.; M. C. Upchurch, Secy.-Treas.; will build mill to knit hosiery. (See Machinery Wanted—Knitting Machinery.)

N. C., Mocksville.—Hosiery.—Mocksville Merchants' Assn., Robt. A. Blaylock, Secy.-Treas., plans organization company to build hosiery knitting mill; \$6000 subscribed. (See Machinery Wanted—Knitting Equipment.)

S. C., Anderson.—Hosiery.—Hetrick Hosiery Mills, Walhalla, S. C., will build branch mill; capitalization \$33,000, and possibly increase to \$48,000; erect 100x50-ft. concrete building; Otto Kaufman, Engr.-Archit., Walhalla; install \$15,000 mill, equipment including 60 knitting machines and electric drive; daily capacity, 250 doz. prs. hosiery. (See Machinery Wanted—Steel Sashes.)

S. C., Greenville.—Bleachery.—Union Bleaching & Finishing Co. will double capacity; increase from 30 to 40 tons daily; construct 3-story addition; building, machinery, etc., reported to cost \$250,000. J. E. Sirrine, Archt.-Engr., Greenville. (Company noted in Jan. as wiring Manufacturers Record of plans to double.)

Tenn., Athens.—Woolen Cloth.—Athens Woolen Mills will build addition.

Tenn., Kingsport.—Hosiery.—W. B. Davis, Fort Payne, Ala., will organize \$50,000 company to build hosiery knitting mill; W. H. Sears, Archt., Chattanooga, Tenn.

Tenn., Morristown.—Woolen Blankets.—Morristown Blanket Mills will be organized with \$50,000 capital; occupy 2-story fireproof ordinary mill construction (brick) building, costing \$10,000, to be erected by Morristown Building Co.; open building bids Mch. 1; install blanket manufacturing machinery to cost \$18,000; W. H. Mullins, Chrmn. of Promotion Committee. Regarding machinery address Edw. C. Hall, care of Mr. Mullins. (See Machinery Wanted—Woolen Machinery.)

### WATER-WORKS

Ala., St. Bernard.—City is having plans prepared by Edgar B. Kays, Engr., Box 151, Cincinnati, Ohio, for water softening plant and powerhouse equipment; voted \$90,000 bonds.

Ga., Savannah.—City will drill 12-in. artesian well; bids until Feb. 13; E. R. Conant, Ch. Engr.; Thos. Halligan, Clk. of Council. (See Machinery Wanted—Well-drilling.)

Ga., Tennesse.—City is having plans prepared by Arthur Pew, Engr., Atlanta, for water-works and sewer system; cost \$25,000; W. E. Murchison, City Clerk.

Ky., Richmond.—City was lately incorrectly reported to vote on \$50,000 bonds to construct water-works.

Md., Baltimore.—Maryland House of Correction, Bridewell, Robt. B. Morse, 16 W. Saratoga St., Baltimore, Engr., will improve water supply: Intake dam; stream straightening; supply pipe line; settling basin;

electrically-operated pumping station; sand filtration plant, 250,000 gals. capacity; new distribution and fire service system, and elevated steel tank, 100,000 gals. capacity; construction by penal labor; materials bids to be received later; tank and tower bids to be received within next 3 weeks; also improve sewerage. (See Sewer Construction.)

Md., Cumberland.—City will soon issue \$500,000 bonds to improve water-works; Jas. H. Fuertes, Engr., 140 Nassau St., New York; Ralph L. Riser, City Engr. (Lately noted as having plans prepared.)

Mo., St. Louis.—City will install 100,000-gal. steam-driven turbine centrifugal pump at Lower Service Station, Chain of Rocks; bids received at Room 315 New City Hall until Feb. 16 to furnish general and detail drawings and erect complete. (See Machinery Wanted—Pump.)

N. C., Pilot Mountain.—C. M. Bernard is interested to secure installation of water and electric-light plant; source of water supply, mountain springs and streams; dams or concrete reservoir contemplated.

N. C., Warsaw.—City is considering construction of water-works, sewer system and electric-light plant; estimated cost, \$30,000. Address The Mayor.

Okl., Checotah.—City, A. O. Johnson, Mayor, will make lately-noted extensions and improvements to cost \$125,000; daily capacity 1,000,000 gals.; construct pump-house, settling basins, filtering plant and pipe line; engineer not yet employed.

Okl., Maysville.—City contemplates improving water-works. Address The Mayor.

Okl., Wewoka.—City voted \$47,000 bonds to improve water-works. Address The Mayor. (Lately noted as contemplated.)

Tex., Athens.—City Council voted \$32,000 warrant issue to enlarge water-works and construct sewerage plant.

Va., Norfolk.—Cape Henry & Virginia Beach Water Corp., capital \$50,000, chartered; Richard D. Cooke, Pres.; Perry W. Ruth, V.-P.; Thos. H. Willcox, Secy.-Treas.

### WOODWORKING PLANTS

Ala., Remlap.—Heading.—Remlap Heading Co., capital \$6000, inceptd. by Holt A. McDowell, H. J. McCormack and J. E. Winning.

Ga., Cordele.—Plow Beams, etc.—Cordele Variety Works organized to manufacture plow beams, step ladders, porch swings, etc.

Ky., Louisville.—Veneer and Panels.—Inman Veneer & Panel Co., capital \$150,000, organized by Chas. W. Inman and others; build plant on site 280x430 ft.; 200,000 sq. ft. floor space; all buildings of brick; main building 3 stories and basement; storage-room for 2,000,000 ft. lumber; truckage facilities for 15 cars.

Md., Baltimore.—Furniture.—Empire Furniture Mfg. Co., 1415 Eastern Ave., inceptd. with \$10,000 capital by Morris Stern, Harry Kleiman and Morris Greenberg.

Mo., New Madrid.—Cooperage.—Way Cooperage Co., capital \$3000, inceptd. by M. J. Conran, Jas. A. Finch and Thos. Gallavin.

N. C., Morgantown.—Broom Handles.—H. F. Payne may establish broom handle factory. (See Machinery Wanted—Woodworking Machinery.)

Tenn., Memphis.—Window Sash.—Tennessee Nu-Style Window Sash Co., capital \$10,000, inceptd. by W. D. Galloway, Jos. H. Creath, C. D. Richards and others.

Tex., Houston.—Handles.—Indiana Handle Co. will build handle factory to cost \$4000.

Va., Boykins.—Staves, Headings, etc.—Boykins Mfg. Co., capital \$15,000, inceptd.; F. M. Powell, Pres.; E. R. Bryant, Secy.

Va., Ivor.—Staves, etc.—Ivor Stave & Lumber Co., John S. Gale, Jr., Pres., and Francis R. Gale, Secy., will install nail keg stave mills and 1 sawmill. (In Jan. noted inceptd. capital \$25,000.)

### FIRE DAMAGE

Ala., East Gadsden (R. Sta., Gadsden).—Freeman Bros.' stores.

Ala., Gadsden.—Nadler Mattress Co.'s plant; loss \$14,000.

Ala., Mountain Creek.—Baxley Mercantile Co.'s building; loss \$5500.

Ark., Cotton Plant.—A. F. Maberry's residence.

Ark., Hot Springs.—Valley Mill Co.'s planing mill, including commissary and lumber yard; loss \$125,000.

Ark., Texarkana.—Wm. Morton's combination grist, shingle and molasses mill; loss \$1600.



Fla., Gainesville.—Gainesville Moss Factory.

Fla., Pensacola.—W. A. Tiffin's residence.

Fla., Tampa.—Buckingham Theater; loss several thousand dollars.

Fla., Trilby.—School building. Address Dist. School Trustees.

Ga., Columbus.—G. W. Radcliff's residence on Willswood Drive.

Ky., Anchorage.—Eugene J. Straus' residence; loss \$12,000.

Ky., Falmouth.—Falmouth Loose Leaf Tobacco Co.'s warehouse; loss \$30,000.

Ky., Offutt.—Rockcastle Lumber Co.'s band sawmill, loss \$50,000; office in First Nat'l Bank Bldg., Huntington, W. Va.

La., New Orleans.—Geier Bros. Lumber Co.'s plant at General Ogden and Poplar Sts.; loss \$70,000.

La., Bossier City.—Bain Peanut Co.'s plant; loss \$60,000.

Mo., Breathedsville.—Antietam Power & Electric Lighting Co.'s powerhouse on Antietam Creek.

Mo., Churchillville.—Dwelling on dairy farm occupied by Charles Oliver Belcamp and owned by James Walsh.

Mo., Cumberland.—H. Buchanan & Son Co.'s planing mill; loss \$10,000.

Mo., Crisfield.—Crisfield Machine Works; loss \$50,000.

Mo., Earleigh Heights.—Harry Smith's residence.

Mo., Elvaton.—George Stinchcomb's residence.

Mo., Elloak.—Wilbur Reinhart's residence; loss \$10,000.

Mo., Funkstown.—Store and residence owned by John Sembler, Hagerstown, Md.

Mo., Glencoe.—Residence on Dickinson Gorsuch's farm, owned by Dr. Frederick G. Mitchell, Glencoe.

Mo., Keymar.—William F. Cover & Son's building used for store, postoffice and warehouse; Western Maryland Ry.'s freight office, H. R. Pratt, Ch. Engr., Baltimore; loss \$15,000.

Miss., Jackson.—Main auditorium of Majestic Theater; loss \$10,000.

Mo., Joplin.—Stores owned by P. L. Swartz, 122 N. Joplin St.; loss \$4000.

Mo., Kansas City.—Bertrand R. Clarke's residence in Sunset Hill; estimated loss \$30,000.

Mo., Portageville.—J. B. Drerup's electric-light plant; loss \$9000.

N. C., Charlotte.—Johnston Building, owned by F. D. Johnston heirs, William R. Robertson and sisters; Commercial National Bank Building; estimated loss \$150,000.

N. C., Concord.—Sappenfield Bros.' building; loss \$5000.

N. C., Durham.—Mrs. A. M. Rigsbee's residence; loss \$6000.

N. C., High Point.—Friends' Church; loss \$15,000. Rev. Sylvester Newlin, Pastor.

N. C., Thomasville.—J. E. Wyche's stores.

Okla., Terral.—First State Bank Bldg.; I. O. O. F. Hall; drug store and grocery store; loss \$30,000.

S. C., Charleston.—Atlantic Coast Line Ry.'s warehouse and pier; loss \$30,000; J. E. Willoughby, Chief Engr., Wilmington, N. C.

S. C., Darlington.—First Baptist Church; loss \$25,000; Rev. Howard L. Weeks, Pastor.

S. C., Mount Pleasant.—Edward Tiencken's store building.

S. C., Sumter.—Geo. P. Shore & Bro.'s warehouse; loss \$7000 to \$8000.

S. C., Sumter.—Offices of Northwestern R. R. of South Carolina; loss \$4000; Thos. Wilson, Prest. and Supt., Sumter.

Tenn., Centerville.—Calvin Lawson's residence.

Tenn., Mascot.—Tennessee Power Co., Chattanooga, Tenn., advises that lately noted fire damaged electrical equipment only; small damage (transformer windings) to repair.

Tenn., Milan.—John Owen's residence.

Tenn., Morrison.—T. G. Bell & Co.; H. L. Comer; Dr. J. A. Clark's office; J. E. Blackenship's store; J. T. Darnell Bldg.; loss \$10,000.

Tenn., Nashville.—The Bell Co.'s novelty plant at 105 Public Sq.; loss \$12,000.

Tenn., Westel.—W. H. Hargitt's residence and store.

Tex., Aransas Pass.—T. B. Wheeler's residence.

Tex., Austin.—N. E. Wainwright's residence; loss \$8000.

Tex., Brownwood.—Midgett Mill, owned by W. D. McCulley; Cash Grain & Feed Store; loss \$30,000.

Tex., Manchester.—Carter, Cowan & Co.'s store.

Tex., Nacogdoches.—John H. Cox's residence; loss \$4000.

Tex., Nixon.—John E. Harvey's residence; loss \$5000.

Tex., Roane.—W. E. Butler's gin; loss \$7500.

Tex., Stanton.—Harris & Gilar's cotton gin; loss \$11,400.

Tex., Waco.—McCrary Transfer & Storage Co.'s building and 2 adjoining buildings, all owned by Wm. Cameron; loss \$50,000.

Va., Alexandria.—Richard Murphy's store; loss \$12,000.

Va., Bedford City.—J. K. Walker's residence on Longwood Ave.

Va., Covington.—T. C. Hodge's store; Bryant Bowling Alley; Overholt Building; Fudge Hardware Co.'s building; J. R. McMunn's residence; estimated loss \$100,000.

Va., Petersburg.—Southern Peanut Hull Mills; loss \$10,000 to \$15,000.

Va., Richmond.—Building occupied by Chesapeake & Ohio Ry.'s storage-rooms and others; loss \$50,000; F. I. Cabell, Ch. Engr., Richmond.

Va., Roanoke.—Virginia Bridge & Iron Co.'s machine shop.

W. Va., Arden.—William Ramsburg's residence; loss \$3000.

W. Va., Charles Town.—Charles Town Laundry; loss \$5000.

W. Va., Charleston.—Robt. J. Weirick's water-power flour mill; loss \$10,000.

W. Va., Charleston.—Harry P. Jones Sons Coal Co.'s store at Seiferst; loss \$8000.

W. Va., Huntington.—Island Creek Fuel Co.'s coal tippie at foot of 13th St.; estimated loss \$30,000 to \$50,000.

W. Va., Martinsburg.—William Ramsburg's residence.

W. Va., Moundsville.—Star Laundry, J. M. Gandee, Prop.; loss on building, owned by Nassief Lewis, \$4000 to \$5000.

let about March 15; plans by and construction under supervision of R. H. Stephens & Co., Wilmington, N. C.

N. C., Spencer.—Y. M. C. A. contemplates erection of \$30,000 to \$25,000 addition.

Okla., Enid.—A. F. & A. M. are reported to erect building.

Okla., Enid.—B. P. O. E. plans to erect clubhouse; reported cost \$75,000.

Tex., El Paso.—Y. W. C. A. will erect \$100,000 structure; Miss Gail Lane, Secy. (Previously noted.)

Tex., Fort Worth.—Y. M. C. A. will erect \$35,000 building for railroad branch; B. G. Leake, Archt., Reynolds Bldg., Fort Worth Address Railroad Y. M. C. A.

Tex., Fort Worth.—Julian Field Lodge, A. F. & A. M., Texas Chapter of Royal Arch Masons and Temple Club leased Hirschfield Bldg. and will expend \$3000 to remodel for lodge.

Tex., Terrell.—B. P. O. E. will erect lodge building to replace structure damaged by fire; cost \$15,000.

W. Va., Huntington.—B. P. O. E. will expend \$6000 to repair clubhouse; R. P. Alshire is interested.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

D. C., Washington.—Mrs. Ada Cave, 1236 K St. S. E., has plans by Wm. A. Vaughn, Barrister Bldg., Washington, for apartment-house; 19x57 ft.; 2 stories; slag roof; gas-steam heat; cost \$13,000; W. S. Watts, lowest bidder, 3611 Tenth St. N. W., Washington, may be addressed.

D. C., Washington.—Edmund R. Fox, 1311 H St., has plans by Spelden & Spelden, 1403 New York Ave., Washington, for apartment and store building at Pennsylvania Ave., 26th and M Sts. N. W.; 100x300x200 ft.; brick and concrete; slag and cement roof; concrete and tile floors; vapor heat; electric lights; cost \$150,000; construction by owner, who may be addressed. (Lately noted.)

D. C., Washington.—Harry Wardman, 1430 K St. N. W., has plans by F. R. White & Co., for 6-story brick apartment-house at 3426 16th St. N. W.; reported cost \$250,000.

D. C., Washington.—Wm. A. Hill has plans by M. G. Lepley, 1406 G St. N. W., Washington, for 4-story brick apartment-house, 2010 O St. N. W.; reported cost \$40,000.

D. C., Washington.—George Henderson, 1418 F St. N. W., is receiving sub-bids for apartment-house at 1749 T St. N. W.; 3 stories; brick and concrete; slag roof; 40x34 ft.; 6 suites of 4 rooms and bath; Julius Wenig, Archt., 721 10th St. N. W., Washington.

Fla., Miami.—W. S. Witham, Atlanta, Ga., will erect 2 store and apartment buildings. (See Stores.)

Fla., Miami.—E. A. Theed will erect apartment-house in summer; site 90x100 ft.

Fla., Pass-a-Grille.—Isaac N. Patterson, Swedesboro, N. J., is reported to erect apartment-house; 2 stories; 40 rooms; frame.

Ga., Atlanta.—Mrs. Addie L. Seny will erect 3-story brick apartment-house; reported cost \$75,000.

Ga., Savannah.—Clarke & Clarke, Agents, are reported to erect brick apartment-house at Bull and Anderson Sts.

Ky., Louisville.—L. Jacobson will erect apartment-house; 100x190 ft.; 2 wings with central court; brick; 3 stories; 42 apartments of 3 or 4 rooms.

Md., Baltimore.—George R. Morris, 533-45 Title Bldg., will convert residence at 837 Hamilton Ter. into apartment-house; 3 stories; brick; 15 suites of 2 rooms, bath and kitchenette.

Md., Baltimore.—Tuscan Apartment Co., 1523 Munsey Bldg., has plans by Clyde N. Friz, 1523 Munsey Bldg., Baltimore, for apartment-house at Stony Run lane and 40th St.; 4 stories; 70x184 ft.; fireproof; tile and slag roof; cost \$100,000; John F. Kunkel, Contr., 298 Linwood Ave., Baltimore; Archt. is taking subbids. (Lately noted.)

Mo., St. Louis.—Claude E. Vrooman is reported to erect \$150,000 apartment-house to be known as Imperial Apartments; 30 suites of 2 and 3 rooms; sleeping porch; sun parlor; marble and tile baths; steam heated garage.

Mo., St. Louis.—Adelaine Kehoe will erect 2-story tenement; cost \$3000.

S. C., Columbia.—Fred Germany of Young & Germany will erect apartment-house; cost \$30,000; also plans to remodel 3-story structure for business building.

S. C., Columbia.—D. G. Ziegler, Son & Co., St. Matthews, S. C., are preparing plans for Winva Apartments; fireproof; 70 to 80 six-room apartments; will call for bids at completion of plans.

Tex., Dallas.—R. H. Clem will erect 3-story apartment-house; 4 suites; hollow tile and concrete slab construction; cost \$13,500.

Tex., El Paso.—Owners of Lakota Flats will expend \$3500 to repair building.

Tex., San Antonio.—Mrs. Otto Koehler has plans by Atlee B. Ayres, Bedell Bldg., San Antonio, for apartment-house; hollow tile and stucco; ornamental brick base; 2 suites of 6 rooms; oak floors; white enamel woodwork; hot-air heat.

Tex., San Antonio.—Mrs. A. C. Cresson will erect apartment-house; cost \$6000.

Va., Pulaski.—Pulaski National Bank will erect building; third floor for apartments. (See Bank and Office.)

Va., Richmond.—Atlantic Construction Co. will erect 2-story brick apartment-house on Leigh St.; cost \$6500.

W. Va., Bluefield.—Bluefield Apartment Building Co. incptd. with \$100,000 capital by F. M. Archer, E. H. Easley, A. B. Mahood and others.

#### ASSOCIATION AND FRATERNAL

Ark., Kingsland.—Kingsland Lodge No. 430, A. F. and A. M., contemplates erecting two-story brick building; lower floor for offices; lodgerooms above.

D. C., Washington.—I. O. O. F. is having plans prepared by W. S. Plager, 2015 Kearney St., N. E., Washington, for lodge; 7 stories and basement; terra cotta facade; fireproof; steel construction; reinforced tile and concrete floors; steel frames and sashes; granite steps and base; mansard roof covered with tile; hardwood and parquetry floors in store portions; corridors, ceramic tile; side walls of Tennessee marble; wainscot, American art marble; 3 elevators, 2 passenger and 1 freight; 5 stores on first floor; 6th and 7th floors for lodge; reported cost \$200,000.

Ga., Macon.—Grand Lodge of Georgia Masons will erect addition to present structure at North Highlands; also erect school building; estimated cost \$50,000; R. L. Colding, Chrmn. Com., Savannah.

La., Baton Rouge.—Y. M. C. A. plans to erect building; estimated cost \$50,000.

La., New Orleans.—New Orleans Lodge No. 30, B. P. O. E., receives bids until March 5 to erect home; fireproof; Italian Renaissance style; white limestone facade; granite base; Turkish baths with white Italian floors, walls and ceilings; swimming pool; tub, shower and needle baths; bowling alleys; gymnasium 65x100 ft.; elevators; electric lights; roof garden; cost about \$300,000; plans and specifications at office Toledano, Wogan & Bernard, Archts., Title Guarantee Bldg., New Orleans. (Previously noted.)

Md., Cumberland.—Allegheny Trades Council will erect 3-story building for labor temple; first floor for stores; second, auditorium to seat 500; third, lodgerooms; cost \$8000 to \$10,000.

N. C., Hamlet.—Union Building Co. will erect \$20,000 home for Railroad Trainmen of State; brick and stone; 3 stories; contract

#### BANK AND OFFICE

Ark., Kingsland.—Kingsland Lodge No. 430, A. F. and A. M., contemplates erecting building; lower floor for offices. (See Association and Fraternal.)

Ark., Little Rock.—Geo. W. Donaghey will remodel upper floors of building at 7th and Main Sts. for offices.

Fla., Sarasota.—Joseph Downey, Chicago, is reported to remodel First National Bank building; 90x120 ft.; plate-glass windows on first floor; prism glass above; construct cornices outlined with white brick; furniture, etc.

Ga., Macon.—Lamar, Taylor & Riley Drug Co. will convert present structure into bank and office building. (See Stores.)

Ky., Madisonville.—Baker & Hinchmann will erect store and office building. (See Stores.)

Md., Leonardtown.—First National Bank of St. Mary's will erect bank building; Enoch B. Abell, one of directors.

Mo., Kansas City.—D. M. Wall will erect 1-story brick office building; cost \$3000.

N. C., Charlotte.—Southern Railway System, B. Herman, Ch. Engr., M. W. & S. Lines East, Washington, D. C., is reported to erect office building.

Okla., Miami.—Ottawa County National Bank plans to enlarge banking room and install new fixtures.

Okla., Sapulpa.—Sapulpa Ice Co. has plans by Wm. Griffith & Son, Sapulpa, for brick office building.

Okla., Tulsa.—J. E. Crosbie, owner of Central National Bank Bldg., will erect 3-story addition to building.

Tex., Athens.—Athens National Bank, J. T. LaRue, Prest., acquired building and will remodel; 28x75 ft.; details not decided; contract let about March 1; cost \$5000.

Tex., Cold Springs.—San Jacinto State Bank will receive bids to erect brick office building.

Va., Newport News.—Newport News Shipbuilding & Dry Dock Co., is having plans prepared by Donn & Deming, 808 17th St., N. W., Washington, D. C., for office building; 4 stories; brick, iron, steel and reinforced concrete; slag roof; steam heat; electric fixtures; 20x250 ft.; reported cost \$800,000.

Va., Norfolk.—Norfolk & Western Ry. will erect office building. (See Railway Stations, etc.)

Va., Pulaski.—Pulaski National Bank will erect 3-story brick building; first floor for bank; second, offices; third, apartments; cost \$50,000.

Va., Richmond.—Jake and Otto Wells will erect theater to contain offices. (See Theaters.)

#### CHURCHES

Ala., Tuskegee.—Methodist Church, Rev. W. M. Curtis, pastor, will erect parsonage; cost \$4000.

Fla., Kissimmee.—First Baptist Church receives bids through C. A. Carson, Kissimmee, until Feb. 12 to furnish material and erect building; brick; 60x60 ft.; asbestos roof; electric heat; seating capacity 375; cost \$15,000; plans and specifications at office Bryan & Poteet, Archts., Lakeland, Fla. (Lately noted.)

Ga., Albany.—First Presbyterian Church has plans by Harry W. Jones, Lumber Ex-

change. Minneapolis, Minn., for building; tile roof; cost \$25,000; steam heat, \$1500; electric lights, \$300; bids opened Feb. 1. Address Thos. H. Milner, Albany. (Previously noted.)

Ga., Savannah.—First Baptist Church, F. M. Oliver, Chmn. Building Com., adopted plans by Henrik Wallin, Savannah, for remodeling building to include changes in basement; provide 2 entrances; renovate main auditorium; construct pulpit, baptistry with marble copings; enlarge gallery by erecting 2 rooms on either side of pulpit; 4 limestone columns with Georgia marble platform and steps; construct roof over platform and columns; place cornice around roof; exterior to be face brick veneered; repair organ; install vapor-vacuum heating system, etc.; cost \$26,000. (Noted in July.)

Ga., Shellman.—Shellman Baptist Church will erect Sunday-school annex; 2 stories; 26x40 ft.; 2 stories; brick; cost \$4000. Address The Pastor.

Ga., Tifton.—Primitive Baptist Church will erect \$10,000 building. Address The Pastor.

La., New Orleans.—St. Matthews' Evangelical congregation is having plans prepared for building; cost \$30,000; Rev. L. Sweickhardt, pastor.

Mo., Chevy Chase.—All Saints' Church has plans by Geo. P. Hales, 3904 Ingomar St., Washington, D. C., and will let contract to John Simpson or A. C. Warthen to erect rectory; 38x15 ft.; stone and frame; slate roof; electric lights; cost \$9000; vapor steam heat, \$850. (Lately noted.)

Md., Middletown.—Christ Reformed Church, Rev. Geo. A. Snyder, Pastor, has plans by Kepner & Smith, Frederick, Md., for parsonage; brick; slate roof; surrounded by porch; basement, 41x35 ft., for social room to have wood floors, metal ceiling and plaster walls.

Miss., Meridian.—Fifteenth Avenue Baptist Church, Rev. E. D. Solomon, Pastor, has plans by R. H. Hunt, Chattanooga, Tenn., for lately noted building; 113.6x104.6 ft.; ordinary or mill construction; slate or composition roof; hot-air or steam heat; cost \$25,000; bids opened Feb. 12; construction begins April 1. Address E. M. Culpepper, Meridian. (See Machinery Wanted Heating; Seating.)

Mo., Montrose.—St. Ludgers' Church has plans by Ernest O. Brostrom, Kansas City, Mo., for sisters' house; 40x60 ft.; mill construction; vulcanite roof; steam heat; acetylene gas lighting; cost \$10,000; day labor.

N. C., Asheville.—First Congregational Church, Rev. J. Brainerd Thrall, Pastor, will erect building as community center and home for Boy Scouts; brick veneer; cost \$15,000.

N. C., Charlotte.—Holy Trinity Lutheran Church, Rev. W. A. Lutz, pastor, will erect \$8300 building.

N. C., High Point.—Friends' Church, Rev. Sylvester Newlin, pastor, will rebuild structure damaged by fire at loss \$15,000; granite blocks.

N. C., Laurel Hill.—Ida Mills Church will erect brick structure. Address The Pastor.

N. C., Statesville.—First Presbyterian Church will erect building. Address The Pastor.

Okla., Checotah.—Methodist Church plans to erect building; cost about \$15,000. Address The Pastor.

Okla., Hobart.—Episcopal Church is reported to erect building. Address The Rectory.

Okla., Keystone.—Methodist Church plans to rebuild burned structure. Address The Pastor.

Okla., McAlester.—Presbyterian Church plans to erect \$40,000 building. Address The Pastor.

Okla., Ponca.—Methodist Church is reported to erect building. Address The Pastor.

Tex., Aransas Pass.—Baptist Church will rebuild structure previously noted damaged by fire. Address The Pastor.

Tex., Hillsboro.—Central Presbyterian Church will erect building to cost \$35,000 to \$45,000; roof garden. Address The Pastor.

Tex., Marlin.—Presbyterian Church will erect building. Address The Pastor.

Tex., Oak Cliff (Station A, Dallas).—Christ Church, Rev. Lee W. Heaton, pastor, will erect building.

Tex., Pendleton.—Methodist Church has plans by Roy L. Thomas, 602 Scarbrough Bldg., Austin, and will soon let contract to erect building; frame; 45x50 ft.; shingle roof; pine floors; electric fixtures.

Tex., Quanah.—Church of Christ plans to enlarge building. Address The Pastor.

Tex., Santa Anna.—Baptist congregation will erect building; W. F. Holland, L. V. Stockard and W. E. Wallace, Building Com.

W. Va., Beckley.—Christian Church, Rev. C. E. Rostofor, Pastor, is having plans prepared by A. A. Honeywell Co., Kokomo, Ind., for church and Sunday-school building; 59x78 ft.; fire-proof exterior only; built-up asbestos roof; electric lights; cost \$16,000; steam heat, \$1400; construction probably begins middle of March. (Lately noted.)

W. Va., Charleston.—Salvation Army will erect addition to Sunday-school; 40x34 ft.; brick, concrete and steel; fireproof; parapet and roof garden; H. Rus Warner, Archt., Charleston.

W. Va., Parkersburg.—St. John's Evangelical Lutheran Church contemplates erecting church building; cost about \$15,000; H. P. Shilling is interested.

### CITY AND COUNTY

Ala., Alabama City.—City Hall.—City will erect city hall; probably cost \$10,000. Address The Mayor.

Ala., Troy.—City Hall.—City contemplates remodeling fire station for city hall and remodeling pumping station for fire station; tentative plans for city hall call for plate-glass windows; ornamental doors, tile lobby, etc. Address The Mayor.

Ga., Cuthbert.—Library.—City will soon let contract to erect Carnegie library. Address The Mayor.

Ky., Lexington.—Church of the Good Shepherd let contract to Congleton Construction Co., Lexington, to erect building, exclusive of concrete foundation and stucco finish. (Lately noted.)

La., Bogalusa.—City Hall and Jail.—City is having plans prepared by Rathbone DeBays, Hibernia Bank Bldg., New Orleans, for city hall and jail; cost \$50,000. (Previously noted.)

La., New Orleans.—Office Building.—Board of Control New Basin Canal and Shellroad, W. C. Lovejoy, Chmn., receives bids until Feb. 21 to erect office building; W. C. Murphy, Supt.

Mo., St. Louis.—Market.—Board of Public Service, E. R. Kinsey, Pres., receives bids until Feb. 20 to furnish and erect structural steel sheds at Souard Market.

Okla., Ardmore.—Fire Station, etc.—City voted \$40,000 fire station bonds and \$15,000 bonds for fair park improvements. Address The Mayor.

Okla., Tonkawa.—Fire Station.—City voted \$10,000 bonds to erect and equip fire station. Address The Mayor.

S. C., Beaufort.—Library.—Public Library Board, H. C. Pollitzer, Secy., has plans by J. H. Sams, Columbia, S. C., and opens bids Feb. 12 to erect library; 32x44 ft.; 2 stories; brick; slate or tile roof; wood, concrete and cement floors; hot-water heat; electric lights. Address Mr. Pollitzer.

S. C., Darlington.—Library.—Public Library Board will erect library. Address The Mayor.

Tenn., Chattanooga.—Park.—Park Board, Ed Herron, Chmn., Parks and Grounds, plans improvements to Warner Park to include roller-coaster or scenic railway; skating park in agricultural building; remodel theater for motion-pictures, etc.

Tex., Houston.—Warehouse.—City, E. E. Sands, Engr., will not erect warehouse on Turning Basin. (Lately noted.)

Tex., Sherman.—Farm.—Grayson County Commrs. will expend \$30,000 to erect fireproof brick building for poor and feeble-minded at county farm.

### COURTHOUSES

La., Monroe.—Ouachita Parish Police Jury, C. W. Phillips, Chmn., is having plans prepared by Mann & Stern, Little Rock, Ark., for courthouse; 3 stories; 100x200 ft.; stone, with marble stairways and trimmings; tile floors; elevators; steam heat; ventilating system; colonnade to be erected on each side building, supported with 6 doric columns; building proper, 300 ft. square; cost \$250,000. (Lately noted.)

### DWELLINGS

Ala., Gadsden.—V. B. Turner will erect residence.

Ark., Little Rock.—C. B. Barker will erect 2-story frame residence; cost \$5000.

D. C., Chevy Chase.—Bertha L. Ganter will not erect residence lately noted.

D. C., Washington.—B. H. Gruver will erect six 2-story dwellings; slag roof; 16x14 ft.;

6 rooms and bath; hot-water heat; gas and electric fixtures; cost \$3000 each; Geo. T. Santmyers, Archt., 921½ New York Ave. N. W., Washington.

D. C., Chevy Chase.—Speiden & Speiden, Archts., 1403 New York Ave., Washington, D. C., are preparing plans for 2 bungalows; 7 and 9 rooms; 1 story, with attic and cellar; frame and pebble-dash construction; shingle roof; cost \$3000 each.

D. C., Washington.—D. J. Dunigan, 203 Bond Bldg., will erect five 2-story brick dwellings, 424-432 Taylor St. N. W.; cost \$15,000.

D. C., Washington.—Joseph S. Frelinghuysen is having plans prepared by J. Henry de Sibour, 1603 K St. N. W., Washington, for remodeling residence both interior and exterior; enlarge rooms; redecorate interior; install heating plant; erect garage, etc.

D. C., Washington.—J. S. Gruver, 709 Union Trust Bldg., is taking sub-bids for 9 dwellings; 2 stories; brick; slag roof; 22x34 ft.; cost \$2000 each; Geo. T. Santmyers, Archt., 921½ New York Ave., Washington.

D. C., Washington.—Middaugh & Shannon, 1039 Woodward Bldg., will erect 14 dwellings on 12th St. and Michigan Ave. N. E.; detached; brick; slate roof; oak and pine floors; hot-water heat; electric lights; plans and construction by owners; all contracts let. (Lately noted.)

Fla., Vero.—J. V. Claar will erect residence.

Ga., Atlanta.—American Cast Iron Pipe Co. will erect 6 dwellings near Acipco; erect 14 dwellings later; Morris Knowles, Landscape Archt., Boston.

Ga., Atlanta.—Oscar B. Lane will erect 1-story brick-veneer bungalow; cost \$3000.

Ga., Atlanta.—W. W. Austell will erect residence; Italian villa style.

Ga., Atlanta.—Howard Muse of Geo. Muse Clothing Co. will erect residence.

Ga., Atlanta.—W. C. Harper will erect 4 frame residences; cost \$6500.

Ga., Augusta.—Chas. Pearl has plans by Bleckley & Irvin, Augusta, for bungalow; 2 stories; 7 rooms; hot-air heat; cost about \$4000.

Ga., Augusta.—H. S. Dunbar has plans by Bleckley & Irvin, Augusta, for residence; 2 stories; 7 rooms; stucco and tile; asphalt shingle roof.

Ga., Washington.—Eugene Roberts will erect residence; 2 stories; frame; Bleckley & Irvin, Archts., Augusta.

Ky., Fleming.—Elk Horn By-Products Coal Co. is reported to build 30 miners' houses.

Ky., Louisville.—F. G. Von Allmen will erect 2 frame dwellings; cost \$6000.

Ky., Mater.—Detroit-Elk Coal Co., S. L. Bastin, Mgr., is reported to build 50 miners' houses.

La., New Orleans.—A. J. Holzer, 317 Burgundy St., will erect residence on Peniston St.

La., New Orleans.—Edw. Duplantier, 4104 Prytania St., will erect residence on Peniston St.

Md., Baltimore.—J. I. Gallagher, 2103 Greenmount Ave., will erect several dwellings on Forest Park Ave.

Md., Baltimore.—John D. Howard is having plans prepared by Mottu & White, 322 N. Charles St., Baltimore, for improvements to residence at 209 W. Monument St.

Md., Baltimore.—Owners Realty Co., 2 E. Lexington St., will erect 10 dwellings on Mimico Circle; 2 and 2½ stories; gray brick; porch fronts; cost \$2500 and \$3000 each; plans prepared; Stanislaus Russell, Archt., 2900 Clifton Ave., Baltimore.

Md., Normandy Heights.—A. B. Lockhart, Continental Bldg., Baltimore, will erect residence at Roland and Lake Aves.

Md., Stevenson.—A. Stanley Zell, 11-15 E. Mt. Royal Ave., Baltimore, Md., has plans by Theodore Wells Pietsch, 1210 American Bldg., Baltimore, for residence at Rogers Station; following contractors estimating for residence and will submit additional bids for garage; Cowan Building Co., 106 W. Madison St.; John Waters Building Co., 23 E. Center St.; West Construction Co., American Bldg., all of Baltimore. (Lately noted.)

Md., St. Helena.—Eastern Land Co., E. H. Bouton, Prest., Club and Goodwood Rds., Roland Park, Md., is having plans prepared for number 2-story dwellings for workmen at Sparrows Point.

Mo., Kansas City.—A. M. Clark will erect 2-story frame dwelling; cost \$3500.

Mo., Kansas City.—J. Y. McCarter will erect 2-story stucco dwelling; cost \$3000.

Mo., Kansas City.—E. C. Haller will erect 2 stucco dwellings; 424-44 W. 62d Ter.; cost \$9000.

Mo., Kansas City.—J. A. Brown will erect residence; 2 stories; stucco; cost \$3700.

Mo., Kansas City.—J. W. Perry will erect 3-story brick residence; estimated cost \$28,000.

Mo., Kansas City.—William Frazier will erect two 2-story stucco-veneer dwellings; cost \$50,000.

Mo., St. Louis.—Bush-Burns Realty Co. will erect 11 bungalows; 6 rooms and sleeping porch; brick fireplace; built-in bookcase; self-regulating hot-water heating system; hardwood floors; tile baths.

N. C., Asheville.—Mrs. J. B. Anderson will erect bungalow at Chestnut and Fulton Sts. N. C., Asheville.—J. T. Bledsoe is reported to erect 5 dwellings.

N. C., Charlotte.—Walter Lambeth has plans by W. G. Rogers, Charlotte, for residence; cost \$10,000; E. S. Draper, Landscape Archt., Charlotte.

N. C., Charlotte.—Henry McAden has plans by L. F. Asbury, Charlotte, for residence; Italian style; stucco; cost \$40,000; general ground development in charge E. S. Draper, Charlotte.

N. C., Durham.—Golden Belt Manufacturing Co., T. B. Fuller, Pres., will erect 50 dwellings for operatives; bungalow type; 4 and 7 rooms; cypress shingle roofs; electric lights; cost about \$50,000; construction begins Feb. 15; construction under supervision of owner. (Lately noted.)

N. C., Greensboro.—John A. Ricks will erect 2-story, 7-room residence; cost \$5000.

Okla., Ardmore.—Thos. W. Champion will erect residence to replace burned structure.

Okla., Bartlesville.—Bartlesville Home Building Co. Incptd. with \$100,000 capital; will erect 50 tenements.

Okla., Kingston.—C. B. Williams is reported to erect residence.

Okla., Oklahoma City.—F. O. Harrell will erect \$3500 frame residence.

Okla., Oklahoma City.—Stewart & Wilderson will erect four 1-story and one 2-story frame residences; cost \$11,000.

Okla., Oklahoma City.—Gill & Conners will erect three 1-story frame dwellings; cost \$7500.

Okla., Sapulpa.—Don W. Walker has plans by Wm. Griffith & Son, Sapulpa, for residence; cost about \$5000. (Lately noted.)

S. C., Charleston.—Andrew Simonds will erect residence.

S. C., Charleston.—T. S. Reeves will erect residence.

S. C., Charleston.—Leiten Realty Co. will erect 6 residences at Rose Gardens.

S. C., Hartsville.—J. H. Chapman will erect 2-story residence on Home Ave.

S. C., Matthews.—Dr. G. V. Cannon is having plans prepared by D. G. Ziegler, Son & Co., St. Matthews, for \$2500 residence.

S. C., Spartanburg.—Aug. W. Smith will erect residence.

Tenn., Nashville.—Mrs. R. N. Murry will erect brick-veneer residence; cost \$4000.

Tex., Austin.—Ethel Feider Webster will erect residence and garage; cost \$4900.

Tex., Childress.—Claude Terrell, Mgr. Perkins-Watkins, will erect residence.

Tex., Dallas.—F. M. Smith will erect 10-room, 2-story frame residence; cost \$3250.

Tex., Dallas.—J. B. Pirtle will erect residence; 8 rooms; 2 stories; frame; cost \$3000.

Tex., Dallas.—M. F. Durrett will erect 2 5-room frame cottages; cost \$3000.

Tex., Dallas.—S. A. Lynch will erect 10-room, 2-story frame residence at 4806 Live Oak St.; cost \$4500.

Tex., Dallas.—W. E. Patton will erect 5-room, 2-story frame dwelling; cost \$3000.

Tex., Dallas.—W. R. Lynch will erect residence at 206 N. Edgefield St.; 8 rooms; 2 stories; frame; cost \$3000.

Tex., Dallas.—O. R. Hill will erect 16-room, 2-story frame dwelling; cost \$4500.

Tex., El Paso.—Mayfield Building & Improvement Co. will erect 6 bungalows at Westminster and Lamar Sts.; cost \$3000.

Tex., El Paso.—W. L. Frame will erect building in Magoffin Homestead addition; cost \$6000.

Tex., El Paso.—A. A. Lawler, 4117 Cumberland St., and D. S. Morgan will erect bungalow; 5 rooms; 28.6x43.6 ft.; brick and stone; shingle roof; wood floors; cost \$3000; Empire hot-air heating plant \$150; electric wiring, \$60; walk, drive and steps, \$150; plans and construction by Mr. Lawler, who may be addressed.



Tex., Farwell.—V. V. Knowles will erect residence.

Tex., Farwell.—Osborn & McCuan are reported to erect two 6-room dwellings.

Tex., Farwell.—G. A. Wulfman will erect residence.

Tex., Farwell.—J. L. Baldwin is reported to erect residence.

Tex., Houston.—E. Spinner will erect residence; 2 stories.

Tex., Houston.—C. N. Nelson will erect residence; hardwood floors.

Tex., Houston.—Houston Land Corporation will erect brick-veneer residence; hardwood floors.

Tex., Houston.—Mrs. Francis R. Wedeck will erect \$3000 residence.

Tex., Lampassas.—Field Senterfitt will erect 2-story brick residence; plans in progress.

Tex., Lampassas.—W. B. Nichols will erect residence.

Tex., San Antonio.—J. M. Oldham will erect two 5-room cottages and 2 sheds; cost \$4500.

Tex., Sarita.—John Kennedy has plans by Henry T. Phelps, San Antonio, for residence and will open bids Feb. 14; reinforced concrete construction; cost \$50,000.

Tex., Paris.—H. D. Eddins will erect stone residence; cost \$4400.

Tex., Paris.—Miss Mollie Biard will erect 2-story frame residence; cost \$3900.

Tex., Paris.—Ralph De Shond will erect 3 dwellings; cost \$4500.

Tex., Wichita Falls.—Linn A. Boyd is reported to erect number of dwellings on 11th St.

Va., Norfolk.—J. T. Harrell will erect 2-story frame and brick residence; cost \$4200.

Va., Richmond.—Helen D. Anderson will erect 5 frame dwellings on Westwood Ave., Griffin St. and The Terrace; cost \$17,500.

Va., Richmond.—Paul L. Rehrmund, 2021 W. Grace St., has plans by Carl Rehrmund, Allison Bldg., Richmond, for 2 residences; 23.6x33 ft. each; mill construction; Mansard roof; cost \$3500; hot-water heat, \$300. (Lately noted.)

Va., Richmond.—C. H. Archer, 2515 Hanover Ave., will erect 2 dwellings at 17-19 South Boulevard; 52x50 ft.; mill construction; tin roof; electric lights; concrete sidewalks; cost \$16,000; plans and construction by owner. (Lately noted.)

Va., Richmond.—Emil Enders will erect 2-story frame residence; cost \$3500.

Va., Radford.—J. S. Wilson, Hillsville, Va., will erect several residences.

Va., Richmond.—L. C. Phillips will erect residence; 2 stories; frame; cost \$3200.

Va., Richmond.—Suburban Development Co. will erect 2-story frame and stucco dwelling; cost \$4250.

Va., Richmond.—W. A. Meredith will erect residence; brick; cost \$3500.

Va., Richmond.—Muhleman & Kayhoe, Real Estate Exch. Bldg., have plans by Marcus Hallett, Richmond, for 8 dwellings on Kensington Ave.; 8 rooms and bath; slag, tin and slate roofs; hot-water heat; electric and gas lights; cost \$43,000; construction by owner, begun. (Lately noted.)

W. Va., Huntington.—B. M. Robinson will erect \$5000 residence.

## GOVERNMENT AND STATE

D. C., Washington.—Fieldhouse.—Office Public Buildings and Grounds, War Dept., Col. W. W. Harts in charge, will erect building in East Potomac Park for fieldhouse, headquarters for golf, tennis, etc.; 20,000 sq. ft. floor space; 1 story; fireproof; hollow tile or brick; slate roof; cement, tile and maple floors; cost \$200,000; bids probably opened in late spring; Horace W. Peaslee, Archt., 1729 New York Ave. N. W., Washington; proposals will not be received until formally invited. (Lately noted under City and County.)

Ga., Statesboro.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., receives bids until March 14, to erect postoffice; drawings and specifications from custodian at site or Mr. Wetmore.

Ky., Frankfort.—Penitentiary.—State Prison Commission, Henry B. Hines, Chmn., has plans by Brinton B. Davis, Louisville, for fireproofing and alterations to cell house; bids opened Feb. 7.

Ky., Marion.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Super. Archt., Washington, D. C., opens bids March 15 to erect postoffice; plans and specifications from

Custodian of site, Marion, or Mr. Wetmore. (Lately noted.)

## HOSPITALS, SANITARIUMS, ETC.

Miss., Clarksdale.—Charles O. Pfeil, 1403 Tennessee Trust Bldg., Memphis, Tenn., is preparing plans for Myra Hancock Pfeil Hospital; tile and stucco.

Miss., Magee.—State opens bids Feb. 14 to erect previously-noted buildings at State Tuberculosis Hospital; 2 buildings, 20x125 ft.; one, 50x70 ft.; 1 residence; frame construction; Bem Price, Archt., Empire Bldg., Birmingham, Ala. Address Dr. W. H. Rowan, Supt. (See Machinery Wanted—Hospital Equipment; Engines; Pumps, Electrical Machinery.)

S. C., Port Royal.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., F. R. Harris, Chief, receives bids until Feb. 26 to erect wood-frame hospital, built on brick or concrete piers and concrete footings, with complete plumbing, electric lighting and heating systems, at naval hospital, Marine Recruiting Station; main roof, shingle; flat roofs, tin; plastered walls and ceilings; building proper, 25.10x108.4 ft., 24.5 ft. high; solarium at end, 14.5x22.10 ft., about 24.5 ft. high; quiet room, 9.6x12.10 ft., about 13.8 ft. high; operating pavilion, 29.6x29.6 ft., 13.8 ft. high; drawings and specifications from commandant at naval station named and from bureau as above.

## HOTELS

Ark., Newport.—Norman C. Wolff is having plans prepared by Mann & Stern, Little Rock, Ark., for hotel to replace Hazel Hotel, previously burned; use portion of structure now standing with reinforced steel; red pressed brick and stucco; 3 stories; 75 rooms; tile lobby; cost \$60,000.

Fla., Palm Beach.—Sidney Maddock, Prop. of Hotel Palm Beach, is reported to erect Gulf Stream Hotel; 5 stories; fireproof; about 400 rooms; Turkish and therapeutic baths; 9-hole golf links; site 600x350 ft.; cost about \$500,000; also reported to remodel and refurnish Hotel Palm Beach.

Ga., Dalton.—Chamber of Commerce, B. A. Tyler, Prest., is promoting erection of hotel.

Ga., LaGrange.—Howard and Henry Park contemplate erecting 3-story hotel and store building. (See Stores.)

La., New Orleans.—St. Charles Hotel Co. will erect 5-story addition to St. Charles Hotel; 250 rooms; also remodel present structure of 7 stories; Sam Stone, Jr., Archt., New Orleans.

La., New Orleans.—P. Sefton Schneidau, representing capitalists, plans to erect Esplanade Hotel on Jockey Club site; 11 stories; reinforced concrete; fireproof; ornamental face brick and terra cotta; stone trim; 250 rooms; 150 to have private baths; constructed in "Y" shape; basement to contain garage, swimming pool, boiler rooms, electric plant, refrigerator plant, cold storage, etc.; cost \$750,000 to \$1,000,000. (Lately noted.)

Md., Havre de Grace.—Edw. H. Glidden, Garrett Bldg.; Henry P. Janes, Equitable Bldg.; Rudolph Reinecke, Hotel Emerson, all of Baltimore, and others are promoting erection of Susquehanna Inn; brick and stucco; 63x128 ft.; tennis courts, walks, etc.; cost about \$150,000; bids opened by Theo. Wells Pietsch, Archt., American Bldg., Baltimore, Feb. 7. (Previously noted.)

Miss., Charleston.—W. B. Burke and others are promoting organization of company to erect Hotel Charleston; plans by R. B. Spencer, Jackson, Miss., call for 3 stories; 37x138 ft.; 41 bedrooms.

Miss., Meridian.—Phil Weidmann has plans by Burt Stuart, Meridian, for hotel; 67x75 ft.; ordinary construction; composition roof; steam gravity heating system; electric lights; cost \$25,000; will let contract in early spring. Address owner or architect. (Lately noted.)

Okla., Drumright.—Arthur O'Dell, Robert T. Achtermann, Aaron Drumright and others will rebuild Morrow House previously noted damaged by fire; fireproof; cost, including furnishings, \$75,000.

Okla., Enid.—Geo. Wilson and others are reported to erect hotel.

Tex., Taylor.—T. W. Marse and Howard Bland, Taylor, and A. J. Zilker, Austin, will soon let contract to erect hotel to replace Murphy Hotel; foundation and walls provided; 3 stories; fireproof; 60 guest rooms; 30 baths; private telephones; steam heat; elevator; hot and cold water in all rooms; 3 stories on first floor; estimated cost \$75,000; E. D. Gerding, Mgr.

Va., Hampton.—J. N. Atkinson, Richmond Hotel, Richmond, acquired Augusta Hotel and will remodel.

W. Va., Huntington.—C. C. Beeber will erect additional story to Frederick Hotel; 50 rooms; also install number of additional baths; cost about \$50,000.

W. Va., Huntington.—Huntington Hotel, owned by company of which P. M. Snyder, Mt. Hope, W. Va., is Prest., A. E. Kelly, Mgr., will erect annex; 75x120 ft.; 6 stories; tub baths for each room; fireproof construction; cost \$200,000 to \$225,000; R. L. and S. L. Day, Archts., First National Bank Bldg., Huntington.

## MISCELLANEOUS

Fla., Bradenton.—Fair.—Manatee County Fair Assn. will erect exhibit buildings at city park.

Fla., Lakeland.—Amusement.—Mr. Lawrence of Starnes-Lawrence Stock Co. will erect brick building for skating rink, dance hall, etc.; probably erect pavilion over water.

Fla., New Smyrna.—Clubhouse.—Coronado Club plans to erect clubhouse.

Fla., Sarasota.—Clubhouse.—Sarasota Golf and Country Club Incptd. with \$5000 capital stock by Honore Palmer, Joseph Downey, T. T. Watrous and others; will erect clubhouse; assembly-room 40x60 ft.; shower baths, etc.; cost \$3000; Harold Hall, Archt., Sarasota.

Fla., Starke.—Barn, etc.—Henry L. Stevenson will erect barn and cow shelters with concrete floors; also install water and light system on Rising Farm.

Fla., Tarpon Springs.—Sponge Exchange.—Directors Sponge Exchange are receiving bids through Arthur Pinder, Secy., to erect Sponge Exchange Bldg.; brick.

Mo., St. Louis.—Clubhouse.—University Club Building Co. Incptd. with \$145,000 capital, is reported to erect 13-story structure; cost \$700,000; to be financed by S. W. Straus & Co., Chicago.

Okla., Oklahoma City.—Exposition.—Fair Assn. plans to erect fireproof building to replace burned structure; cost about \$150,000.

Okla., Sapulpa.—Hall.—Salvation Army will erect hall.

Tex., Boerne.—Fair.—Kendall County Fair Assn. will erect grandstand, improve race track, etc.

Tex., Corsicana.—Clubhouse.—Corsicana Country Club has plans by H. O. Blanding, Corsicana, for clubhouse; 2 stories; hollow tile; asbestos shingles; wood and tile flooring; electric fixtures; steam heat; 115x45 ft.; cost about \$18,000.

## RAILWAY STATIONS, SHEDS, ETC.

Tex., Littlefield.—Panhandle & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex., will double size of present depot.

Va., Norfolk.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, Va., will erect 2-story brick office building.

## SCHOOLS

Ala., Bessemer.—Board of Education, John W. Brooks, Prest., will call election on \$50,000 bonds to erect high school.

Ala., Sylacauga.—City has plans by Deacon & Alger, Chattanooga, Tenn., for school; 12 rooms and auditorium; fireproof; metal roof; steam heat; electric lights; cost \$30,000; will let general contract in about 2 months. Address W. L. Howard, Sylacauga. (Lately noted.)

D. C., Washington.—St. Aloysius Catholic Church plans to erect parochial and high school to cost \$100,000. Address Rev. Paul R. Conniff, 19 I St. N. W., Washington.

Fla., Jacksonville.—Board of Public Instruction is having plans prepared for additions to Brentwood, Lackawanna and Fairfield schools; assembly-rooms, domestic science kitchen and manual training shop to Lackawanna school.

Fla., St. Petersburg.—St. Petersburg School Dist. voted \$175,000 bonds to erect high school. Address School Board. (Lately noted.)

Fla., Trilby.—Trilby School Dist. will erect school to replace burned structure. Address Dist. School Trustees.

Fla., Vero.—Board of Public Instruction of St. Lucie County, Fort Pierce, Fla., has plans by Mark & Sheffall, Jacksonville, for grammar, high school and auditorium; ordi-

nary construction; 57x132 ft.; flat composition roof; electric lights; cost \$25,000; steam heat, \$1000; votes Feb. 13 on \$25,000 bonds; bids for construction of building opened in April or May. (Lately noted.)

Fla., Winfield.—Board of Public Instruction of Columbia County, Lake City, Fla., will erect negro grammar school; main room 22x32 ft., with 2 wings 18x22 ft.; ordinary wood construction; shingle roof; bids opened Feb. 6. Address J. B. Porter, Lake City. (Lately noted.)

Ga., Athens.—City will erect \$5000 gymnasium to high school building. Address The Mayor.

Ga., Hineson.—Hineson School Dist. votes Feb. 28 on \$4000 bonds to erect school. Address County Supt. Public Instruction, Camilla, Ga.

Ga., Hopeful.—Hopeful School Dist. votes Feb. 28 on \$5500 bonds to erect school. Address County Supt. of Public Instruction, Camilla, Ga.

Ga., Sale City.—Sale City School Dist. votes Feb. 26 on \$8000 bonds to erect school. Address County Supt. of Public Instruction, Camilla, Ga.

Ga., West Point.—West Point Mfg. Co., Shawmut Mills, is having plans prepared by Walker & Chase, 1633 Candler Bldg., Atlanta, for school; ordinary construction; tar and gravel roof; steam heat; electric lights; plans complete in about 2 weeks. (Lately noted.)

Ky., Crofton.—Crofton School Dist. voted \$7000 bonds to erect high school. Address Dist. School Trustees.

Md., Chevy Chase.—Montgomery County Board of Education, Willis B. Riddette, Supt., Rockville, Md., has plans by Kepner & Smith, Frederick, Md., for 8-room school at Chevy Chase and 6-room school at Kensington; cost \$37,000; bids opened Feb. 5. (Lately noted.)

Md., Kensington.—Montgomery County Board of Education will erect school. (See Maryland, Chevy Chase.)

Miss., Union.—Union Consolidated School Dist. plans to issue \$5000 bonds to erect school building and teacher's home; C. B. Young, County Supt. of Education.

Mo., Cameron.—Missouri Wesleyan College has plans by M. S. Martin, Hannibal, Mo., for college building; about 170x125 ft.; ordinary construction; slate roof; heat from central station; cost about \$60,000; construction on percentage basis. (Lately noted.)

Mo., Fulton.—Westminster College, E. E. Reed, Prest., plans to erect \$50,000 building.

Mo., Trenton.—Board of Education is considering \$60,000 to \$75,000 bond issue to erect school. Address The Mayor.

N. C., Fuquay Springs.—Fuquay Springs and Cardenas Consolidated School Dist. votes Feb. 6 on \$15,000 bonds, to be supplemented by \$5000 by Wake County Board of Education, Raleigh, N. C., to erect graded school. (Lately noted.)

Okla., Durant.—Durant School Dist. voted \$92,000 school bonds. Address Dist. School Trustees. (Lately noted.)

Okla., Garber.—City plans to erect school. Address The Mayor.

Okla., Kingfisher.—School Board contemplates erecting consolidated school.

Okla., Mill Creek.—School Board of Mill Creek Dist. No. 2 is having plans prepared by Bramlet & Huseman, Oklahoma Bldg., Oklahoma City, for school; 2 stories; frame and common brick.

Okla., Norman.—Women's Missionary Society of M. E. Church South, Mrs. R. M. Campbell, Prest., Oklahoma City, will erect \$30,000 dormitory at University of Oklahoma; fireproof; accommodate 50 girls.

Okla., Ringling.—School Board of Ringling-Cornish Dist. plans to erect high school.

Tex., Brownwood.—City voted \$80,000 bonds to erect high school. Address The Mayor. (Lately noted.)

Tex., Delia.—School Dist. No. 73 has plans by and will let contract to Rube Wilson, Mart, Tex., to erect school to replace structure lately noted damaged by fire; 2 stories; 60x62 ft.; shingle roof; Myers heating system. Address J. B. Brown, Delia.

Tex., Fort Worth.—School Board receives bids through Sanguinet & Staats, Archts., Fort Worth, until Feb. 10 (extended date) to erect first unit of high school; reinforced concrete, brick, hollow tile, stone and terra cotta; gravel and clay tile roof; wood, cement and tile floors, steam heat. (Lately noted.)

Tex., Megaree.—City is considering issuing \$10,000 bonds to erect 2-story public school. Address The Mayor.

Tex., Pearsall.—Pearsall School Dist. voted \$5000 bonds to erect school addition; T. H. Ward and others, Trustees.

Tex., Vernon.—City, S. H. Hall, Secy., receives bids until Feb. 12 to erect school building; 2 stories; brick and tile; gravel roof; steam heat; electric fixtures; cost \$16,000; plans and specifications obtainable at office T. J. Galbraith, Archt., Slaughter Bldg., Dallas, and Mr. Hall as above. (Lately noted.)

Va., Portsmouth.—City voted \$150,000 school bonds. Address The Mayor.

Va., Portsmouth.—St. Paul's Catholic Church is having plans prepared by R. K. Revell, Portsmouth, for home for sisters in charge of St. Joseph's Academy; will contain chapel, dormitory, laundry, offices, etc.; buff brick; 3 stories; cost \$15,000.

W. Va., Berkeley Springs.—Board of Education of Bath Dist., Morgan County, will erect high school; brick; flat roof; maple floors, except concrete basement floor; hot-air heating; fan ventilating; electric lights; concrete sidewalks; cost \$20,000; architect not selected; contract to be let by Apr. 1 and construction begun by Apr. 15. Address R. E. Allen, Pres. of Board.

W. Va., Cameron.—School Board is having plans prepared by A. Breternitz, 222 Meigs Ave., Parkersburg, W. Va., for addition to grade school; cost \$25,000; will soon receive bids.

W. Va., Davis.—Trustees are having plans prepared by Holmboe & Lafferty, Empire Bank Bldg., Clarksburg, W. Va., for addition to high school to contain auditorium; cost about \$13,000.

W. Va., Point Pleasant.—Point Pleasant Ind. School Dist. has plans by Chas. W. Bates, National Bank Bldg., Wheeling, W. Va., for high school; 2 stories; 60x70 ft.; reinforced concrete; tapestry brick and terra-cotta; reinforced concrete floors with wood surface; fireproof composition roof; modulation low-pressure heat with exhaust ventilation; electric lights; ready for bids Feb. 10. (Lately noted.)

### STORES

Ala., Birmingham.—Ramsey & McCormick will erect 1-story frame building at 1800 Ave. E; cost \$9000.

Ala., Birmingham.—C. B. Morgan will erect 2-story frame building at 41st and 12th Ave.; cost \$5500.

Ala., Birmingham.—Earle Real Estate Co. is reported to expend \$20,000 to repair brick building at 1913 3d Ave. North.

Ala., East Gadsden (R. Sta., Gadsden).—Freeman Bros. will erect store building to replace burned structure.

D. C., Washington.—H. Zirkin is having plans prepared by Geo. P. Hales, 3904 Ingomar St. N. W., Washington, for 5-story store building; brick, terra cotta, iron, steel and reinforced concrete; slag roof; steel sashes, metal ceiling; steam heat; electric elevator; damp-proofed; electric fixtures.

Fla., Jacksonville.—H. J. Klutho will erect frame building on 9th St.; cost \$3000.

Fla., Miami.—W. S. Witham, Atlanta, Ga., will erect 2 store and apartment buildings; one 100x150 ft.; 2 stories; 5 stores on ground floor; apartments above; cost \$16,000; other, 50x60 ft.; 2 stories; cost about \$9000.

Ga., Macon.—Lamar, Taylor & Riley Drug Co. will erect store building; convert structure occupied by drug company into office and bank building to be occupied in part by Continental Trust & Bank Co.

Ga., Macon.—Chas. Wachtel Clothing Co. is having plans prepared by Hupp & Shelverton, Macon, for improvements to 2 buildings on Cherry St.; will remove partitions, install plate glass front, with marquise, remodel front, calcimine and repaint interior, etc.; plans completed in about 2 weeks. (Lately noted.)

Ga., Macon.—T. C. Burke has plans by Hupp & Shelverton, Macon, for remodeling store building on Cherry St.; 30x140 ft.; 2 stories and basement; mill construction; tin roof; low pressure steam heat; electric lights; Otis or Warner elevator; bids opened in about 10 days or 2 weeks; cost \$5000 to \$6000. (Burden, Smith & Co. lately noted to remodel this structure.)

Ky., Madisonville.—Baker & Hinchmann will erect store and office building; 2 stories and basement; cost about \$15,000; John T. Waller, Archt., Gish Bldg., Hopkinsville.

La., Crowley.—Kennedy Bros. acquired building on Second St. and will improve; erect addition 24x100 ft. on west side and warehouse 74x150 ft. in rear.

La., La Grange.—Howard and Henry Park are reported to remodel stores occupied by Callaway Department Stores; install fronts, etc.; also contemplate erecting 3-story building on Main St.; first floor for stores; second and third, hotel; remodel present hotel and connect two buildings, giving total of 90 rooms.

Md., Cumberland.—Alleghany Trades Council will erect building; stores on first floor. (See Association and Fraternal.)

Mo., Kansas City.—J. Brydge will erect 1-story brick store; cost \$5000.

Mo., Kansas City.—F. H. Thwing will erect additional story to brick business building; cost \$10,000.

Mo., Joplin.—P. L. Swartz, 122 N. Joplin St., will erect fireproof store buildings to replace structures damaged by fire at loss of \$4000.

N. C., Asheville.—John H. Jenkins is reported to erect several business buildings.

Okla., Beaver.—Mrs. V. V. Metzger will erect 2-story business building.

Okla., Cyril.—Camp & Cook will erect brick business building.

Okla., Dewar.—Gilbert Lewis & Son, Hanna, Okla., will erect brick business building.

Okla., Drumright.—R. B. Farris and C. K. Lewis will erect brick business building.

Okla., Duke.—Aboussie & Haddad will erect brick business block.

Okla., Enid.—Alton Mercantile Co. is reported to erect business block.

Okla., Frederick.—B. E. Brisley will erect brick business building to replace burned Popular Theater.

Okla., Garber.—M. G. Taft contemplates erecting brick and cement business building.

Okla., Hennessey.—W. L. Hamer will erect business building; 3 stories; cement and steel.

Okla., Miami.—W. E. Schumacker plans to erect business building; 2 stories; brick and cement.

Okla., Norman.—J. D. Rierson will erect brick business building.

Okla., Okmulgee.—E. W. Kimbley and J. M. Mollendike plan to erect 6-story business building.

Okla., Stroud.—Crapenter & Foushee Bros. will erect brick business building.

S. C., Columbia.—Fred Germany plans to remodel 3-story structure for business building. (See Apartment-houses.)

Tex., Austin.—Walter Bremond will expend \$3000 to repair building at 801 Congress St.

Tex., Corsicana.—J. B. Cooley has plans by M. T. Horne, Corsicana, for 1-story brick business building; 75x90 ft.; bids opened Feb. 8.

Tex., Dallas.—Nannie B. Stone will erect 1-story addition to building at 4203 Bryan St.; cost \$4000.

Tex., Dallas.—J. E. Pierce, Austin, Tex., will erect 3-story \$50,000 business building; Marion Foushee and Hal B. Thompson, Archts., Dallas.

Tex., El Paso.—H. G. Schneider will erect business building; 2 stories and basement; foundation to support 8 stories; cost \$25,000.

Tex., Farwell.—J. R. Meason will erect brick business building.

Tex., Farwell.—B. F. Fears is having plans prepared for fireproof business building; 50x110 ft.; will soon let contract.

Tex., Houston.—C. J. Koehler will expend \$12,000 to repair 3-story business building.

Tex., Lubbock.—T. L. Fairris is having plans prepared by Smith & Townes, Grand Theater Bldg., Amarillo, Tex., for business building; 1 story; 26x115 ft.; face brick; tar and gravel roof; wood floors; metal ceiling; stone and brick cornice; 2 skylights; contractor will purchase materials; cost \$5000.

Tex., Paris.—Scott & Parsons will erect brick business building; cost \$3000.

Tex., Paris.—H. P. Mayer will erect business building; 2 stories.

Tex., Princeton.—S. H. Shipman will erect brick business building.

Tex., San Antonio.—John Dittmar will erect concrete building at 416 College St.; cost \$12,000.

Tex., Taylor.—T. W. Marse and others will erect hotel; stores on 1st floor. (See Hotels.)

Tex., Victoria.—George Taggart contemplates erecting number 1-story brick stores.

Tex., Victoria.—Victoria Hardware Co., 205 S. Main St., opens bids Feb. 12 to erect store building; fireproof; 2 stories and basement; provision for 2 additional stories

later; 83.3x70.3 ft.; ordinary construction; tar and gravel roof; Luxfer prism vault lights; electric freight elevator; cost \$20,000; Praeger & Dixon, Archts., Victoria. (Lately noted.)

Tex., Waco.—F. Rotan will erect business building.

Va., Richmond.—Jake and Otto Wells will erect theater to contain stores. (See Theaters.)

### THEATERS

Ga., Dawson.—R. P. Grier, Mgr. Palace Theater, will convert 1st floor Kennedy & Brim warehouse into moving-picture theater; seating capacity 600.

Miss., Jackson.—John Livelar, Canton, Miss., will rebuild Majestic Theater, lately noted damaged by fire at loss \$10,000.

Mo., Springfield.—Grubel Bros., Kansas City, are reported to erect \$100,000 moving-picture theater.

N. C., Durham.—R. D. Craver and T. E. Demtrialis will soon let contract to remodel Paris Theater, to be known as Broadway Theater; interior changes, construct balcony, etc.

Tex., Cuero.—C. L. Denton, Dallas, acquired Royal Theater and will remodel.

Va., Richmond.—Jake and Otto Wells have plans by Charles K. Howell, Richmond, for moving-picture theater on Colonial Theater site at Broad and 8th Sts.; seating capacity 1800; bronze and glass awnings over entrance; 83.3x70.3 ft.; ordinary construction;

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

La., Alexandria.—Wilfred G. Gehr, P. O. Box 358, Alexandria, let contract to Gehr Construction Co., Inc., Alexandria, to erect lately-noted apartment-house; 2 stories and basement; 48.10x87.8 ft.; brick foundation; stucco walls; asbestos fireproof composition roof; hot-water heat; electric lights; concrete sidewalks; cost \$10,000; bids opened Feb. 15; construction begins Feb. 25. Address contractor. (See Machinery Wanted—Building Materials.)

La., New Orleans.—J. B. Levert let contract to J. A. Haas, Jr., New Orleans, to erect duplex apartment-house; each suite contains 3 bedrooms, 2 baths, front and rear sleeping porches, etc.; oak floors; enameled woodwork; decorated walls and ceilings; 3 basements; Walter Cook Keenan, Archt., New Orleans. (Previously noted.)

Md., Catonsville.—Charles Tabor has plans by and let contract to Simon R. Dill, Harlan Rd., Catonsville, to erect 4-family frame apartment-house at Old Frederick and Harlan Rds.; cost \$20,000.

Okla., Waurika.—J. C. Henderson has plans by and let contract to erect store and apartment-house. (See Stores.)

W. Va., Wheeling.—J. E. Martindell let contract to R. R. Kitchen Co., Wheeling, to erect apartment-house.

### ASSOCIATION AND FRATERNAL

La., Lake Charles.—B. P. O. E. let contract to W. J. Quick to rebuild home; cost \$17,000.

N. C., Durham.—Y. M. C. A. let contract to H. N. Francis of H. N. Francis Co., Richmond, Va., for marble and tile work on buildings for which H. L. Smith, Durham, has general contract; plans by Shattuck & Hussey, 19 S. La Salle St., Chicago, for remodeling, include additional bedroom, auditorium, reinforced concrete swimming pool faced with ceramic tile, 16 or 17 showers with marble linings, stair work and partition work in basement and first floor, installing steel lockers for gymnasium, etc.; cost \$8000 to \$10,000; completion about March 1. Address G. Frank Warner, Secy., Durham. (Noted in Oct.)

### BANK AND OFFICE

D. C., Washington.—Davidson & Davidson, Southern Bldg., let contract to Weller & Smith, Equitable Bldg., Washington, to erect store and office building at 15th and K Sts.; 12 stories; 35x103.7 ft.; fireproof; slag roof; vapor steam heat; electric lights; cost \$130,000; electric elevators, about \$7000; B. Stanley Simmons, Archt., Real Estate Trust Bldg., Washington. (Previously noted.)

Ga., Augusta.—Jacob Phinazy let contract to erect store and office building; 214x90 ft.; 1 story; foundation to support additional story; stone; cost \$30,000.

La., Shreveport.—Merchants Building Co. let contract to Central Contracting Co.,

trances; 3 stores on Broad St. side; offices above.

### WAREHOUSES

Ark., Fort Smith.—Ward Furniture Mfg. Co. will erect storage warehouse; 100x90 ft.; ordinary construction; asbestos felt roof; steam heat; cost \$8000; A. Kilgenschmidt, Archt., Fort Smith. Address W. T. Goodman, care Ward Furniture Mfg. Co. (Lately noted.)

La., Crowley.—Kennedy Bros. will erect warehouse. (See Stores.)

Tex., Austin.—Shear Co. has plans by Kuehne, Chasey & Glescke, Austin, for warehouse; 74x120 ft.; semi-fireproof; gravel roof; factory flooring; electric freight Otis elevator; bids opened Feb. 4. Address Architects.

Tex., Dallas.—Fred and Frank Edwards plan to erect gasoline and automobile supply station at Main and St. Paul Sts.

Tex., El Paso.—R. E. McKee will erect \$3000 warehouse at 1st and Virginia Sts.; also foundation and piers for building in Cotton addition; cost \$6000.

Tex., Houston.—City will not erect municipal warehouse. (See City and County.)

Tex., Houston.—John McClelland will erect warehouse; cost \$15,000.

Tex., San Antonio.—Dixie Oil Co. has plans by Henry T. Phelps, San Antonio, for warehouse; reinforced concrete; bids opened Feb. 1; cost \$8000. Address architect.

Houston, Tex., to erect office building; 12 stories; 40x150 ft.; reinforced concrete; cost \$25,000 to \$35,000; also let contract for heating to Home Heating Co., Monroe, La.; plumbing, C. M. Brenner Plumbing Co., Shreveport; Sanguinet Staats, Fort Worth, Tex.; E. F. Nield, Shreveport, Archt. (Lately noted.)

Md., Baltimore.—Western Maryland Dairy Co., Irvin D. Baxter, Pres., will erect 2-story brick office building and stables at 1121-23 Linden Ave.; 39x148 ft.; cost \$18,000; G. Walter Tovell, Archt. and Builder, Eutaw and McCulloh Sts.

Md., Baltimore.—Calvert Bank let contract to Charles Herbold & Sons, 2768 W. North Ave., Baltimore, to erect branch structure at 1806-8 Pennsylvania Ave.; 1 story; brick and stucco; 23.10x40.3 ft.; cost \$9000; A. Cookman Leach, Archt., 353 N. Charles St., Baltimore. (Lately noted.)

Md., Baltimore.—Harry B. Wolf, 204 Courtland St., let contract to Fred Wright to erect office building at 112 E. Lexington St.; 2 stories; white marble. (Lately noted.)

Md., Baltimore.—Security Storage & Trust Co., let contract to Cowan Building Co., 106 W. Madison St., Baltimore, to erect 1-story brick addition to structure at 11-21 W. North Ave.; 24.11x25 ft.; slag roof.

Tex., Hallettsville.—First State Bank of Hallettsville let contract to H. H. Snowden, Cuero, Tex., to erect building; 2 stories; brick; 27x100 ft.; wood joists; tin roof; wood floors; steam heat; electric lights; Luxfer prism vault lights; cost \$11,500; Emmett T. Jackson, Archt., Moore Bldg., San Antonio. (Lately noted.)

Va., Richmond.—Wise Granite & Construction Co., Richmond, general contractor to erect building for Professional Building Corporation, let following sub-contracts: Excavation, J. C. Cheatwood; brick work, Fulton Brick Works; granite and limestone, I. J. Smith & Co.; roofing and sheet metal work, David Simpson & Son; lathing and plastering, E. D. Hicks; hardware, Watkins Cottrell Co.; painting, W. D. Timmons; glazing, Binswanger & Co.; plumbing, Kritzer & Harmon; heating, D. M. Delaney; electric work, W. H. Jenks; elevators, Otis Elevator Co.; cement, sand and gravel, C. P. Lathrop & Co., all of Richmond; reinforced concrete work, Hammett Fireproofing Co.; interior marble and terrazzo, American Mosaic Co., both of Washington, D. C.; reinforcing steel, Dietrich Bros. Co.; ornamental terra cotta, Chesapeake Terra Cotta Co., both of Baltimore, Md.; interior partitions, United States Gypsum Co., New York; ornamental iron, Roanoke Iron Works, Roanoke, Va.; millwork, Roach & Musser Co., Muscatine, Iowa; plans by Chas. M. Robinson, Inc., call for 7-story structure; reinforced concrete construction; gravel roof; concrete floors; steam heat; city electric lights; cost \$100,000. (Previously noted.)

### CHURCHES

Ga., Valdosta.—Baptist Tabernacle let contract to J. D. Witherington to remodel build-



ing; provide 12 classrooms; stucco exterior; cost \$7500; Lloyd Greer, Archt., Valdosta. (Lately noted.)

Okla., Woodward.—First Baptist Church has plans by J. O. Parr, Oklahoma City, and let contract to Charles Skemp to erect building; 72x82 ft.; stone and face brick; cost \$23,000. (Lately noted.)

Tenn., Chattanooga.—Wisdom Memorial Church, Rev. E. R. Roach, Pastor, let contract to erect \$3500 structure.

### CITY AND COUNTY

Ga., Edison—City Hall.—City let contract to W. S. Beauchamp, Arlington, Ga., to erect city hall; brick.

La., New Orleans—Office.—Richard McCarthy, Jr., 807 Hennen Bldg., New Orleans, general contractor to erect office building for Sewerage and Water Board, let following sub-contracts: Plumbing, C. C. Hartwell Co.; electric work, W. A. Dilzell; plastering, Wm. Delaney; factory work, Roberts & Co.; marble work, Albert Welben Marble Works; reinforcing steel, Ole K. Olsen; structural steel, Virginia Bridge & Iron Works; painting, Frank J. Matthews; brick, lime and cement, J. W. Thompson and F. Jahnecke, Inc.; hardware, Stauffer, Eshleman & Co.; roofing, Woodward, Wight & Co.; all of New Orleans; terra-cotta, Federal Terra Cotta Co., Woodbridge, N. J.; glass, Pittsburgh Plate Glass Co., Pittsburgh, Pa.; interior trim, Paine Lumber Co., Oskosh, Wis.; cost \$276,506; Toledoano, Wogan & Bernard, Archts., Title Guarantee Bldg., New Orleans. (Lately noted.)

Okla., Ponca City—Auditorium.—City let contract to O. F. Keck, Ponca City, to erect auditorium; cost \$25,000; Layton & Smith, Archts., Oklahoma City. (Lately noted.)

Tex., Beaumont—Sheds.—City let contract to J. S. Merriweather to erect first unit municipal freight sheds; 400 ft. long; galvanized iron; cost, including equipment, \$65,000.

### COURTHOUSES

Tex., Paris.—Buchanan & Gilder, Dallas, general contractors to erect Lamar County Courthouse, let following sub-contracts: Granite work, J. B. Huffman; millwork and interior trim, Ingram & Co.; plastering, Sutton Plastering Co., all of Fort Worth; structural steel, Texas Carnegie Steel Co.; sidewalk lights, S. A. Elsberry; glass, Federal Glass & Paint Co., all of Dallas; reinforcing steel, Trussed Concrete Steel Co., Youngstown, Ohio; terra cotta, New Jersey Terra Cotta Co., Perth Amboy, N. J.; painting and decorating, Paul M. Heerwagen, Fayetteville, Ark.; plans by Sanguinet & Staats, Fort Worth, and Barry & Smith, Paris, call for 4-story and basement structure 100x100 ft.; reinforced concrete, stone and terra cotta; Barrett specification roof; reinforced concrete slab and beam floors; cost \$180,000. (Previously noted.)

Tex., Refugio.—County let contract to De Pew & Rainey to erect courthouse; 2 stories and basement; 90x75 ft.; fireproof; reinforced concrete; gravel roof; reinforced concrete floors; outside walls face brick backed with hollow tile; tile floors in halls; marble wainscoting, etc.; cost \$75,000; Atlee B. Ayres, Archt., San Antonio. (Previously noted.)

### DWELLINGS

Ala., Gadsden.—J. B. Levert, New Orleans, let contract to W. S. Moyers, Gadsden, to erect two 5-room cottages on Twelfth St.; plans by Mr. Simpson.

Ark., Kingsland.—E. R. Buster will erect residence; 2 stories; 14 rooms; lower story, brick veneer; upper, stucco; mill construction; composition shingle roof; cost \$7000; concrete sidewalk, \$500; construction begins about Mar. 1; J. A. McCabe, Contr. and Supt. of Construction, Kingsland; Clyde A. Ferrell, Archt., Little Rock. Address Contr.

D. C., Washington.—Robert Mayo, Jr., 615 Piney Branch Rd., let contract to D. F. Swab, 426 Rittenhouse St., Washington, to erect residence at 7000 Piney Branch Rd., Washington; 37x34 ft.; mill construction; slate roof; electric lights; cost \$6400; hot-water heat, \$650; J. R. Kennedy, Jr., Archt., 190 Carroll Ave., Takoma, D. C. (Lately noted.)

Fla., Fort Myers.—J. T. Duncan, Louisville, Ky., let contract to J. Van Duyl to erect bungalow on 2nd St.

Ga., Augusta.—Augusta Realty Co. let contract to T. O. Brown & Son, Augusta, to erect five 7-room residences on Russell St.; frame; cement tile roof; double floors; pine finish; cost \$17,000; Bleckley & Irvin, Archts., Augusta. (Lately noted.)

Ky., Louisville.—Rev. Marion P. Hunt, 924 Cecil Ave., let contract to S. L. Dorsey & Son, 2925 Virginia Ave., Louisville, to erect residence; 28x32 ft. with kitchen 14x12 ft.; brick veneer; asphalt shingle roof; hot-air heat; city electric lights; cost \$4000; Joseph & Joseph, Archts., Atherton Bldg., Louisville. (Lately noted.)

Md., Baltimore.—Conrad Realty Co. has plans by and let contract to Vaughan Building Co., Charlotte, to erect 2 5-room bungalows; ordinary construction; shingle roof; cost \$4000. Address owner. (Lately noted.)

Md., Catonsville.—Mrs. Pfeiffer has plans by and let contract to Simon R. Dill, Harlan Rd., Catonsville, to erect 4 brick cottages.

N. C., Charlotte.—Dr. J. W. Squires let contract to Sherrill & Stroup, Charlotte, to erect \$15,000 colonial residence; L. F. Asbury, Archt.; E. S. Draper, Landscape Archt., both of Charlotte.

N. C., Hamlet.—J. R. Page and M. W. Nash let contract to J. W. McGirt, Hamlet, to erect 4 dwellings.

S. C., Charleston.—Jos. E. Jenkins, 33 Broad St., let contract to McCrady Bros. & Chevis, Charleston, to erect residence; 8 rooms; ordinary construction; tin roof; coal grates and gas heating; electric lights; cost \$4000; Walter H. Smith, Archt., Peoples Bldg., Charleston.

Tenn., Memphis.—Clarence Saunders has plans by McGee & Lester and let contract to Chas. H. Sims, both of Memphis, to erect residence; 11 rooms; red-gum interior trimmings; hardwood floors; vacuum vapor heat; cost \$25,000; completion about May 1.

Tex., Cuero.—W. L. Traylor let contract to erect residence on N. Line St.

Tex., Port Arthur.—R. L. Drake let contract to Thos. Gibson to erect \$5000 residence.

Tex., Princeton.—C. E. Milligan let contract to J. R. Pistole, McKinney, Tex., to erect 10-room residence.

Va., Newport News.—Powell Trust Co., A. L. Powell, Prest., will erect about 20 dwellings in Garden City; 5 to 7 rooms; shingle roof; concrete sidewalks; cost about \$32,000; McKee & Williams, Archts.; E. F. Pilard, Contr., both of Newport News.

Va., Petersburg.—Harry N. James let contract to Geo. N. James, Petersburg, to erect residence; about 32x40 ft.; frame; slate roof; cost \$4000; Richard A. Munden, Archt., Petersburg; construction begins in 30 days. Address owner.

### GOVERNMENT AND STATE

Md., Cambridge.—Armories.—State let contract at about \$100,000 to H. D. Watts Co., Garrett Bldg., Baltimore, to erect armories at Cambridge, Hyattsville and Westminster, Md.; about 100x80 ft. with front and rear wings, 3 stories each; main drill hall, 60x96 ft., about 36 ft. high; stone and steel truss construction; composition roof; wood floors; heating and lighting not in general contract; construction begins at once; J. Ben Brown, Archt., Cambridge. (Lately noted.)

Md., Hyattsville.—See Md., Cambridge.

Md., Westminster.—See Md., Cambridge.

N. C., Burlington.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let contract at \$56,725 to McAdams & Mitchell, Burlington, to construct postoffice. (Noted in Nov.)

S. C., Marion.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supr. Archt., Washington, D. C., let contract to George Becking & Son, Chattanooga, Tenn., to construct postoffice building. (Lately noted.)

### HOTELS

Fla., Sarasota.—Treasure Island Inn Co. is being organized with \$1,800,000 capital; Edward C. Warren, Prest.; let contract to company being organized, and represented by H. L. Boughton to construct, furnish and equip hotel on Treasure Island; fireproof; concrete; 3 stories; English basement and roof garden; 720x208 ft.; 297 standard bedrooms, 4 duplex apartments with private stairways, and 14 tower-rooms with shower baths; sleeping porches for all standard bedrooms; cost, including equipment, furnishing and landscape work, \$1,300,000; W. Johnson Quinn of New York, Manager of Goshen Inn, Goshen, N. Y., will be manager; Samuel Parsons, Landscape Archt., 191 Park Ave., New York. (Lately noted.)

Ga., Waycross.—C. M. Sweet and L. J. Cooper let contract to V. C. Parker & Son, Waycross, to erect hotel; 33 rooms; 3 stories; brick; 19 baths.

N. C., Hamlet.—E. A. Lackey let contract

to erect 3-story addition to Central Hotel; 40 rooms with bath; first floor for stores.

Tex., San Angelo.—C. C. McBurnett let contract to W. C. Hedrick Construction Co., Dallas, to erect hotel; 90x105 ft.; reinforced concrete; Barrett roof; cost \$150,000; vacuum steam heat, \$30,000; electric lights, \$21,000; electric elevators, \$7750; Geo. Burnett Co., Archt., 212-14 Cameron Bldg., Waco, Tex. (Previously noted.)

### MISCELLANEOUS

Fla., West Palm Beach.—Clubhouse.—Women's Club let contract to Mr. Nelson to erect clubhouse; 68x78 ft.; 2 stories; reinforced concrete; composition roof; oak and maple floors; hot-water heat; electric lights; auditorium to seat 500; cost \$10,000; W. L. Eckler, Archt., West Palm Beach. (Lately noted.)

Md., Baltimore.—Stables, etc.—Western Maryland Dairy Co. let contract to erect office building and stables. (See Bank and Office.)

S. C., Chester.—Baldwin Cotton Mills let contract to Fiske-Carter Construction Co., Greenville, S. C., to erect amusement building; seating capacity 352; ordinary construction; metal shingle roof; cost \$5000; J. E. Sirlane, Archt., Greenville. (Lately noted.)

Va., Richmond.—Grandstand, etc.—Boulevard Athletic Field Corp., organized with \$20,000 capital; Alvin M. Smith, Prest.; B. W. Wilson, Secy.-Treas.; let contract to R. M. Anderson & Co., Richmond, to erect grandstand, bleachers, fence, etc., at baseball park; also let contract to C. S. Luck, Richmond, for baseball diamond, including grading, etc.

### RAILWAY STATIONS, SHEDS, ETC.

S. C., Spartanburg.—Southern Ry. System, B. Herman, Ch. Engr., M. W. & S., Washington, D. C., let contract to erect additional umbrella sheds 300 ft. long.

### SCHOOLS

Fla., Jacksonville.—Duval County Board of Public Instruction is reported to have let contract to R. V. LaBarre, Jacksonville, to erect Stanton school at Ashley and Broad Sts.; 240x60 ft., with auditorium wing 50x85 ft.; 25 rooms; brick; 5-ply built-up roof; metal (or terra-cotta) tile and concrete floors; steam heat; city lighting; cost \$78,377; also to erect annex to West Riverside school. (Lately noted.)

Ga., Griffin.—Board of Education, W. E. H. Searcy, Jr., Prest., let contract to Gresham Mfg. Co., Griffin, to erect high school, and to L. P. Blanton & Son, Griffin, to erect North Side graded school according to plans by J. F. Leitner, Wilmington, N. C.; former 2 stories and basement; 10 classrooms, auditorium, 2 gymnasiums, domestic science and manual training rooms and study hall; brick; terra-cotta trimmings; Barrett specification and tin roof; rift-pine floors; fanblast warm-air heating system; latter 6 classrooms; steam heat; brick; 1 story and basement; plumbing, heating and ventilating to be let separate from general contract. (Previously noted.)

Ga., Augusta.—Board of Education let contract at \$97,247 (not \$7247, as lately stated) to Palmer-Spivey Construction Co., 18 Campbell Bldg., Augusta, to erect Tubman High School for Girls; fireproof; concrete, stone and tile, 3 stories; composition roofing; indirect and direct steam heat, \$11,000; electric lights, \$3000; G. Lloyd Preacher, Archt., Augusta. Address Contr. (Lately detailed.)

Ga., Valdosta.—South Georgia Normal College let contract to Southern Ferro Concrete Co., Atlanta, to erect administration building; ordinary construction; tile roof; Webster vacuum-heating system; cost \$65,000; Edwards & Sayward, Archts., 633 Candler Bldg., Atlanta; also let contract to Ferrell Heating & Plumbing Co., Atlanta, for heating. Address general contractor. (Lately noted.)

Miss., Advance.—Advance School Dist. let contract to erect \$6000 school. Address Dist. School Trustees.

Okla., Alva.—Board of Education let contract to R. M. Crissman, Oklahoma City, to erect high school; 120x110 ft.; 3 stories; semi-fireproof; tar and gravel roof; also let contract at \$11,447 to Kavanaugh & Shea, Alva, for steam-fan direct and indirect heating and ventilating; at \$5653 to Ed. McGerry, Alva, for plumbing; cost \$56,900.50; construction begins at once and completion by Sept. 1; Layton & Smith, Archts., Oklahoma City. (Lately noted.)

Okla., Okemah.—G. W. McBurney has contract to erect school.

Tenn., Bristol.—Sullins College let contract to Kingsolver & Huddle, Bristol, Va., to rebuild college; 3 stories; 250-ft. frontage; rough texture brick; limestone trim; hardwood floors; auditorium to seat 400 to 500; gymnasium with white tile swimming pool, hot and cold showers, private lockers, etc.; standpipes and fire extinguishers in corridors; fire escapes; steam heat; separate building for power plant, equipped with low-pressure boilers and water-heating apparatus for heating water for baths and swimming pool; cost \$85,000; completion by fall term. (Noted in Nov.)

Va., Richmond.—Westhampton School Dist. let contract to P. J. White & Son, Richmond, to erect high school; 69x129 ft.; brick and concrete; slate roof; wood floors; steam coil blower system of heat; cost \$40,000; Benj. West Pindexter and Marcellus Wright, Archts., 21 Allison Bldg., Richmond. (Lately noted.)

### STORES

Ark., El Dorado.—Griffin Bros. let contract to W. B. Smith and Lawrence Russell, El Dorado, to erect business building; brick; 50x100 ft.; cost about \$4500.

D. C., Washington.—Davidson & Davidson let contract to erect store and office building. (See Bank and Office.)

Ga., Atlanta.—McWhorter Miller let contract to Cooper & Pursley, Atlanta, to erect 2-story brick building at Edgewood Ave. and Boulevard; cost \$4000; J. C. Battle, Archt., Atlanta.

Ga., Augusta.—Jacob Phinizy let contract to erect store and office building. (See Bank and Office.)

La., Rayville.—Frank Fragala let contract to Coenen Bros., Rayville, to erect brick store building; cost about \$5500.

N. C., Durham.—R. H. Wright let contract to J. P. Propst, Charlotte, to erect building for Elfr Bros.; 50x100 ft.; ordinary construction; metal shingle roof; cost \$10,000 to \$12,000; heating, \$2500 to \$3000; lighting, \$250; elevators, \$2000; L. L. Hunter, Archt., Charlotte, N. C. (Previously noted.)

N. C., Hamlet.—E. A. Lackey let contract to erect addition to Central Hotel for stores, etc. (See Hotels.)

S. C., Greenwood.—Mrs. C. T. Bailey and A. F. McKissick let contract to W. G. Sutherland, Greenwood, to erect 3 stores; fireproof; pressed brick; 2 stories and basement; 16-ft. ceiling; 2 with 25-ft. frontage; one 28-ft. frontage; completion about Aug. 15; to be occupied by G. A. Byrd, The Alenzer and J. W. Duckett Co.

Okla., Waurika.—J. C. Henderson has plans by and let contract to E. E. Churchill, Fort Worth, Tex., to erect 2-story brick store and apartment building; cost \$14,000.

Tex., Post.—M. J. Seitz and W. R. Graeber let contract to Jas. Napier, Post, to erect store building; 40x110 ft.; brick and tile; asphalt, felt and gravel roof; wood and concrete floors; cost \$5200; R. E. Gilmore, Archt., Post. (Lately noted.)

Tex., San Angelo.—Kossuth Aycock let contract to erect \$10,000 business building.

Tex., Terrell.—G. H. Jackson & Son let contract to erect brick business building.

Va., Bristol.—John A. Mahoney let contract to R. A. Wilson, Bristol, to remodel Harnel theater for department store for Doss Bros.; 3 stories; 120x60 ft.; mill construction; metal roof; enameled brick and white glazed terra cotta facade; 25-ft. canopy across front with glass top and metal trimmings; show windows with metal plate settings; 2 electric Moffitt elevators; cost including fixtures \$20,000; vacuum-heating system, \$1800; Thos. S. Brown, Archt., Bristol; also let contract for plumbing and heating to Fred Hays, Bristol.

Va., Danville.—N. R. Thomas let contract to H. A. Osborne & Son, Danville, to erect 3-story store building for Smith Seed & Feed Co.; 65x125 ft.; semi-mill construction; slate roof; electric freight elevator; cost \$13,000 to \$15,000; Pritchett & Henderson, Archts., Danville; construction begins about Apr. 10.

W. Va., Wheeling.—H. L. Guion Co. let contract to E. J. Pearson to rebuild Levy's Toggery lately noted damaged by fire; cost \$20,000.

### WAREHOUSES

Tex., Wichita Falls.—Nash Hardware Co., Fort Worth, let contract to Taylor Bros., Wichita Falls, to erect warehouse; 56x70 ft.; 14-ft. loading dock; mill construction; pitch and gravel roof; natural gas heat in office only; city electric lights; cost \$5000; W. G. Clarkson, Archt., Fort Worth. (Lately noted.)



## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

**Air Compressor.**—Easton Machinery Co., Drake Bldg., Easton, Pa.—Belted air compressor; 8x8 or larger.

**Boiler.**—Kilgore Coal Corp., Lee Kilgore, Mgr., Coeburn, Va.—Prices on 60 H. P. marine-type boiler; second-hand preferred.

**Boiler.**—See Locomotive, etc.—M. Walkoff.

**Boilers (Return Tubular).**—Easton Machinery Co., Drake Bldg., Easton, Pa.—Two 72x18 horizontal return tubular boilers, 125 lbs. steam.

**Boils.**—Queen City Machinery Co., Gadsden, Ala.—Several thousand bolts, 1/2x2 to 3/4x12 in.

**Bottles (Water).**—Flintstone Magnesia Spring & Development Co., 42 Bedford St., Cumberland, Md.—Prices on 5, 3, 2, 1 and 1/2-gal. water bottles, also 1-qt. bottles.

**Brick (Cement) Machinery.**—W. E. Latture, Bristol, Tenn.—Addresses of manufacturers of cement brick machinery.

**Bridge Construction.**—Sevier County, T. O. Poole, County Judge, De Queen, Ark., and Little River County, Lon T. Jones, County Judge, Ashdown, Ark.—Bids until Mar. 1 to construct bridge over Little River between Little River and Sevier counties at Greenwood Shoals; plans and specifications obtainable from Parkes Engineering Co., Citizens' Bank Bldg., Pine Bluff, Ark.

**Broom Machinery.**—Will Howard, R. F. D. No. 2, Lebanon, Va.—Data and prices on machinery for manufacturing brooms.

**Broom Machinery.**—B. F. Howard, R. F. D. No. 2, Lebanon, Va.—Data and prices on broom machinery.

**Building Materials.**—W. B. Camp, Torrington, Conn.—Prices (after Feb. 10) on all kinds of building materials.

**Bucket (Clam-shell).**—Hyper-Humus Co., Newton, N. J.—Prices on 1/2 to 1-yd. clam-shell merry-go-round; steam-driven.

**Button (Mussel) Machinery.**—L. R. Wadley, Secy. Chamber of Commerce, Monroe, La.—Addresses of makers of machinery for manufacturing mussel shell buttons.

**Building Materials.**—Gehr Construction Co., Inc., Alexandria, La.—Prices on building materials for \$10,000 apartment-house.

**Building Materials.**—See Garage Equipment, etc.—Carolina Motor Co.

**Building Materials.**—J. H. Bates & Sons, P. O. Box 367, De Land, Fla.—Bids until Feb. 25 on all branches of work to erect postoffice building; plans and specifications on file at office Jas. A. Wetmore, Acting Supervising Archt. of Treasury Dept., Washington, D. C., and J. H. Bates & Sons, as above.

**Bulkhead Construction.**—Board of Control, W. C. Lovejoy, Chmn., New Basin Canal and Shellroad, New Orleans, La.—Bids until Feb. 21 to construct 300 lin. ft. creosoted timber bulkhead and for driving 24 foundation piling and 22 wharf piling, all at head of New Basin Canal; information on application; W. C. Murphy, Supt.

**Cabinets (Electric).**—Murphy Hotel Co., Richmond, Va.—Addresses of manufacturers of electric cabinets.

**Cane Mills, etc.**—Northwestern Steel & Iron Works, Little Rock, Ark.—Jobbers' prices from manufacturers of cane mills, evaporator pans, etc.; view to distribution in Southwest.

**Car (Railroad, Push).**—Westminster Oil & Fertilizer Co., Westminster, S. C.—Prices on standard S. H. push car; for standard gauge railroad sidetrack use.

**Cars (Steam Railway).**—Pennsylvania Equipment Co., Philadelphia, Pa.—Several second-hand 36-in. gauge passenger coaches.

**Cars.**—See Railway Supplies (Electric).—Ocean City & Fenwick Ry. Co.

**Castings (Steel, etc.).**—Municipal Excavator Co., 202 E. Main St., Oklahoma City, Crucible and cast-steel castings, manganese castings and drop-forged castings.

**Chemical Fire Extinguishers.**—Dargan-Wagoner Co., Pampllico, S. C.—Prices on chemical fire extinguishers, pails, etc.

**Clamps (Gluing).**—Toccoa Furniture Co., Toccoa, Ga.—Prices on Palmers patent gluing clamps; second hand.

**Cold-storage Plant.**—F. & O. Gudenrath, Gudenrath Bldg., Huntsville, Ala.—Cold-storage plant for fruits and vegetables.

**Conduit (Steel).**—See Truck and Trailers.

**Corn and Feed (Buhr) Mill.**—Box 10, Route 3, Salisbury, N. C.—Prices on 12 to 16-in. portable stone buhr mill, complete, for grinding corn for meal and feed.

**Drainage.**—Six and Twenty Drainage Dist. Comms., Anderson, S. C.—Bids until Feb. 26 to construct drainage canal along Six and Twenty Mile Creek, Town Creek and Little Six and Twenty, including clearing right of way and building rip-rap dams; total length canal, 16 mi.; 3 mi. 22 ft. wide, 2 mi. 18 ft., 4 mi. 14 ft., 3 1/2 mi. 10 ft. and 3 1/2 mi. 8 ft. wide; average depth 5 ft.; total excavation, 332,000 cu. yds.; specifications, forms, etc., obtainable on application to W. H. Shearer, Engr. and Constr. Supt., Anderson.

**Dredging.**—U. S. Engr. Office, Baltimore, Md.—Bids until Mar. 8 for dredging in Elk River; information on application.

**Electric-Light Materials.**—C. E. Record, Butler, Ky.—Prices on 20 H. P. oil engine; 15 K. W. generator, D. C., 220 volts; 400 lbs. No. 12 and 500 lbs. No. 10 copper wire; storage battery.

**Electric-Lighting System.**—John T. Connell, Director of Works, Mississippi Centennial Exposition Co., Gulfport, Miss.—Bids until Feb. 21 to construct illuminating system and electrical work on exposition buildings; illumination plans and specifications obtainable from A. W. Lewin, Electrical Engr., 631 Audubon Bldg., New Orleans, La., or from John T. Connell, Director, for \$5; plans and specifications of the buildings obtainable for \$25.

**Electrical Equipment, etc.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 44,000 ft. steel conduit, schedule 677, delivery Washington; also, schedule 696, the following for delivery Charleston: 13 gongs (contact makers); 2 electric heaters; 2 contact makers, bells, etc.; 2 gong pulls; 4 portable ventilating sets; 1 each transmitter and indicator, fire-room telegraph; 2 1-indicator, engine-telegraph, mechanical transmitters; 5 angle rudder transmitters; shaft revolution transmitter; whistle electric outfit.

**Engine.**—G. W. Simmons Co., 118 N. Front St., Memphis, Tenn.—150 to 200 H. P. Corlies engine, either first-class second-hand or guaranteed rebuilt condition.

**Engines.**—See Hospital Equipment.—Dr. W. H. Rowan.

**Electrical Machinery.**—See Hospital Equipment.—Dr. W. H. Rowan.

**Evaporators.**—See Cane Mills, etc.—Northwestern Steel & Iron Works.

**Fan (Exhaust).**—W. H. Cole, Hazelwood, R. Sta., Waynesville, N. C.—Second-hand shaving exhaust fan; double 50 or 55; good condition.

**File Machinery.**—Fred Strickland, Anderson, S. C.—Data and prices on machinery for manufacturing gummer (circular) files 1/2-in. thick and 1 1/2-in. diam.

**Fire Engine (Chemical).**—A. D. Lunn, Fire Chief, Volunteer Dept., Nocona, Tex.—Prices on combination fire truck, motor-driven, equipped with chemical tank to contain not less than 25 gals.; with ladders; truck to have capacity of 1000 ft. standard fire hose; cost within \$1000, Nocona or Dallas, Tex.

**Flour.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 300,000 lbs. flour, schedule 672, delivery Mare Island.

**Garage Equipment, etc.**—Carolina Motor Co., Statesville, N. C.—Prices on equipment for garage; also prices on materials for 1-story and basement garage building, with 70-ft. front and 150-ft. depth.

**Grading (Railway).**—R. P. Parker, Engr., Southern Hotel, Jackson, Tenn.—Bids until Feb. 10 to grade 40-mi. extension of Gulf, Mobile & Northern R. R. (New Orleans, Mobile & Chicago R. R.) from Middleton to Jackson, Tenn.; separate bids on each 10-mi. section and also on 40-mi. as

whole; plans, profiles and specifications on file with Mr. Parker.

**Grinding Machines.**—H. P. King, Roswell, Ga.—To correspond with manufacturers of grinding machines of special type for flat surfacing or concave work, and not roll work.

**Heating.**—E. M. Culpepper, Meridian, Miss.—Bids on hot-air or steam heating plant for \$25,000 church.

**Hospital Equipment.**—Dr. W. H. Rowan, Supt. Mississippi State Tuberculosis Hospital, Magee, Miss.—Engines, pumps, electrical machinery, dining-room, kitchen and bedroom equipment, bedding, blankets, office furniture, etc., for tuberculosis hospital.

**Iron (Channel).**—Toccoa Furniture Co., Toccoa, Ga.—Prices on 3-in. channel iron.

**Irrigation Canals.**—Cameron County Irrigation Dist. No. 1, F. H. Brown, Prest., Harlingen, Tex.—To open bids Feb. 6 on construction 50 mi. canals and laterals; about 650,000 yds. earth removal.

**Knitting Machinery.**—Lillington Hosiery Mill Co., E. T. Spence, Prest., Lillington, N. C.—Data and prices on machinery for knitting hosiery.

**Knitting Equipment.**—Mocksville Merchants' Assn., Robert A. Blaylock, Secy-Treas., Mocksville, N. C.—Data and prices on equipment for hosiery knitting.

**Lathes.**—G. W. Simmons Co., 118 N. Front St., Memphis, Tenn.—5 or 6 Defiance spoke and handle lathes and two 48-in. Defiance neck yoke and singletree lathes.

**Laundry Equipment.**—Fork Union Military Academy, C. E. Crosland, Prest., Fork Union, Va.—Data and prices on laundry equipment.

**Lift (Hydraulic, Mail), etc.**—Treasury Dept., Supervising Archt.'s Office, Washington, D. C.—To open bids Mar. 16 for installation hydraulic mail lift, pump, etc., in U. S. postoffice and courthouse, Philadelphia, Pa.; copies of drawings and specifications obtainable at discretion.

**Locomotive.**—Appalachian Ry. Co., W. J. Parker, Gen. Mgr., Newport, Tenn.—Prices on 55-ton locomotive.

**Locomotive (Gasoline).**—Hyper-Humus Co., Newton, N. J.—Prices on 24-in. gauge gasoline locomotive.

**Locomotives.**—Pennsylvania Equipment Co., Philadelphia, Pa.—2 or 3 second-hand 36-in. gauge locomotives for freight and passenger service.

**Locomotives, etc.**—M. Walkoff, 1216 Callowhill St., Philadelphia, Pa.—Writes to Manufacturers Record: "I have inquiries from Russia for locomotives and railroad track, width between wheels of locomotives to be 750 millimeters (about 20 in.), new and second-hand; railroad supplies, bolts, plates, frogs, switches, cross-overs, clamps, etc., for new factory railroad; water pipes for use on farm, to extend 20 mi.; would like illustrated catalogues with price list, f. o. b. New York; steam boiler and power presses, for pressing straw and hay, price to be \$425 to \$600, f. o. b. New York."

**Lumber (Crating).**—American Floor Surfacing Machine Co., 518 S. St. Clair St., Toledo, O.—Carload 1x4-in. crating; quote f. o. b. cars Toledo.

**Machines, Tools, etc.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish two 24-in. bench drills, two double emery grinders, two engine lathes, schedule 682, and grinding vertical machine, schedule 683, delivery Mare Island; 24-in. turret lathe, schedule 689, delivery Boston; laundry machinery, schedule 691, delivery Brooklyn, Mare Island; 12 laundry press ironers, schedule 694, delivery Brooklyn, Norfolk; 14-in. swing engine lathe, column extension base shaper, schedule 690, and 10 motor-driven sewing machines, schedule 688, delivery Brooklyn.

**Manufactures.**—Henry Coe & Cleriel, 3 Via Victor Hugo, Milan, Italy.—To represent manufacturers of machinery, metals, technical products, etc.

**Manufactures.**—Eduardo Leseur, Maracalibo, Venezuela.—To represent American manufacturers.

**Mattress Machinery, etc.**—Nocona Cottonseed Oil Co., Nocona, Tex.—Data on establishment of factory to manufacture mattresses, quilts, etc., from cottonseed lint, and prices on machinery.

**Metals.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 39,000 lbs. plain angle steel, 27,000 lbs. floor plate steel, 16,000 lbs. class B boiler plate steel and 179,000 lbs. class C boiler plate steel, schedule 685, delivery Portsmouth, N. H.; bar steel, nickel, class A, schedule 688, delivery Brooklyn; 230,000 lbs. steel castings, schedule 670, f. o. b. works; steel (nickel, forgings), schedule 682, delivery Washington; 556,000 lbs. galvanized soft sheet steel, also

cold-rolled soft steel, schedule 686, delivery Norfolk.

**Metal-working Machinery.**—See File Machinery.

**Mining (Graphite) and Milling Machinery.**—M. T. Davis, 20 N. McDougall St., Montgomery, Ala.—Correspondence with manufacturers of graphite mining and milling machinery.

**Mixer (Concrete).**—Hyper-Humus Co., Newton, N. J.—Second-hand small gasoline-driven concrete mixer.

**Motor (Electric).**—Damsweg Co., Norfolk, Va.—Used 20 H. P. A. C. motor; 3 phase, 60 cycles, 220 volts.

**Motor (Electric).**—Kilgore Coal Corp., Lee Kilgore, Mgr., Coeburn, Va.—Prices on 10 H. P. A. C. motor, 220 volts, 3-phase, 60 cycle.

**Paving.**—City of Roanoke, Ala., J. P. Liles, Mayor.—Bids until March 1 to construct 10,400 sq. yds. street paving; bids on all standard paving materials; W. L. Hill, City Clerk.

**Paving.**—Baltimore (Md.) Board of Awards, City Hall.—Bids until Feb. 14 to grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 25, 26, 27, 28, 29, 30, 31 and 32; specifications and blank proposal sheets on application to Highways Dept., R. M. Cooksey, Highways Engr., City Hall.

**Pennant Machinery.**—Robt. H. Sutherland, Chatom, Ala.—Data and prices on pennant machinery and mills.

**Piling (Steel).**—Walter A. Zelnicker Supply Co., St. Louis, Mo.—Lackawanna or United States 20 to 40-ft. lengths steel piling; good condition; state quantity, price and when can ship.

**Piping.**—See Locomotives, etc.—M. Walkoff.

**Piston (Gas Engine) Enlargement.**—Ocala Iron Works, Ocala, Fla.—Information on process of enlarging or expanding gas engine pistons.

**Polishing (Marble) Machinery.**—Battley Machinery Co., Rome, Ga.—1 or 2 second-hand polishing machines for marble and portable surfacing machine for granite.

**Posts (Iron).**—Dept. of Interior, Washington, D. C.—Bids in General Land Office until April 4 to furnish and deliver tubular iron posts, with brass caps, for public land survey corners; copies of plans and specifications obtainable on application to Ch. Clerk, General Land Office.

**Presses (Hay and Straw).**—See Locomotives, etc.—M. Walkoff.

**Pump.**—Virginia Machinery & Well Co., 1319 E. Main St., Richmond, Va.—800 gallon steam pump for 150 lbs. working water pressure; new or second-hand.

**Pump.**—Lighthouse Inspector, Charleston, S. C.—Bids until Feb. 6 for vertical single-acting beam air pump, with 1 simplex steam cylinder, for marine surface condenser service; information on application.

**Pump (Plunger).**—Easton Machinery Co., Drake Bldg., Easton, Pa.—18x10x18 outside packed plunger pump.

**Pump.**—City of St. Louis, Mo., Room 315, New City Hall.—Bids until Feb. 16 to furnish general and detail drawings and erect complete in place at Low Service Pumping Station, Chain of Rocks, 100,000,000-gal. steam-driven centrifugal pump; plans, specifications, form of contract and other information from office of Director of Public Utilities, Room 312, New City Hall.

**Pump (Fire, Underwriters).**—Empire Machinery & Supply Corp., 36 Commercial Place, Norfolk, Va.—Underwriters' fire pump; capacity 500 or 750 G. P. M.; second-hand, good condition.

**Pumps.**—See Hospital Equipment.—Dr. W. H. Rowan.

**Pumps (Hydraulic).**—See Lift (Hydraulic, Mail), etc.—Treasury Dept.

**Railway Supplies (Electric).**—Ocean City & Fenwick Island Ry. Co., C. Edward Shute, Secy., Ocean City, Md.—Prices on about 10 mi. rails (relays, 50 to 60 lbs.), copper wire, poles, etc.; also 4 open trolley cars, with running-board, for summer use.

**Road Construction.**—Lauderdale County Comms., Florence, Ala.—Bids until March 12 to grade and surface with gravel 2 mi. of Jackson Highway, between Florence and St. Florin; State ad.; also sub-grade and surface 3 mi. of Florence and Waterloo Rd., west of Oakland; W. S. Keller, State Highway Engr., Montgomery, Ala.

**Road Construction.**—Highway Dept., Board of State Engrs. of Louisiana, Room 104, New Orleans Court Bldg., New Orleans, La.—Bids until Feb. 12 to surface with gravel or clam-shell Gretna-Belle Highway, Plaque-



mines Parish, 2.5 ml.; information as to location, character of work, etc., from office of Highway Dept., W. E. Atkinson, State Highway Engr.

**Road Oiling.**—Maryland State Roads Commission, 601 Garrett Bldg., Baltimore, Md.—Bids until Feb. 15 for oiling 6 sections State highway, 468.96 mi., requiring 1,254,499 gals. oil, in various counties; specifications and plans on application.

**Road Machinery.**—See Tractors (Oil or Gasoline).—Randolph County.

**Roaster (Peanut and Popcorn).**—P. O. Box 44, Weatherford, Tex.—Popcorn and peanut roasting machine; new or second-hand.

**Seating.**—E. M. Culpepper, Meridian, Miss.—Pews for \$25,000 church.

**Sewer Construction.**—Comms. District of Columbia, Room 509 District Bldg., Washington, D. C.—Bids until Feb. 15 to construct 600 lin. ft. pipe and masonry sewers, 10-in. to 2-ft. 6-in. diam.; proposal forms, specifications and information from Chief Clerk, Engr. Dept., Room 427 District Bldg., Washington.

**Sewing Machines.**—Emilio Guasch, Tucuman, Argentina—Addresses of manufacturers of sewing machines.

**Scale Manufacturers.**—Collin G. Shaw, Monroe, N. C.—To arrange for manufacture of model scale for test; scale pertains to parcel post.

**Shop Machines, Steel Cable, Hardware, etc.**—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until Feb. 23 for shop machines; steel cable; bearing metal; brass tubing; tin pipe; scrub and paint brushes; grindstones; garbage cans; rollers; blow torches; tool handles; steel tapes; hose; packing; gaskets; rubber matting; canvas; tarpaulins; sash cord; twine; leather belting; emery cloth; sand paper; pipe covering; boiler lagging; carbide; alumina sulphate; potassium chlorate; lumber, etc.; blanks, etc., relating to this circular (No. 1120) obtainable from this office or offices of assistant purchasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engineer offices in principal cities throughout the United States.

**Shovel (Steam).**—Harvey Co., 113 South St., Baltimore, Md.—Two model 31 Marion steam shovels.

**Sprinklers.**—See Chemical Fire Extinguishers.—Dargan-Wagoner Co.

**Steel Sashes.**—Hetrick Hosiery Mills, Waltham, S. C.—Data and prices on steel window sashes for 100x50-ft. concrete construction mill building.

## RAILROAD CONSTRUCTION

### RAILWAYS

Ark., Clarksville.—Plans are under consideration looking to the construction of a railroad from Clarksville to points in Pope County, either Rector or Broomfield, about 25 ml. A committee has been appointed thus: J. W. Coffman, Sam Laser, J. J. Montgomery, D. W. Dunlap, W. E. Atkinson, W. E. Robinson and Brown Moore.

Fla., St. Augustine.—St. Augustine Public Service Corp. has applied to the City Commissioners for an extension of a year to complete its work, saying that construction contract has been let to Samuel Stevenson Sons & Co. of New Haven, Conn., and that 7½ ml. of line have been graded and 3½ ml. of track laid from South Jacksonville. T. R. Osmond and others interested.

Fla., Tampa.—Tampa Southern R. R. Co., capital stock \$200,000, and which proposes to build a line from Tampa, or near there, southward to Bradentown, Manatee and Sarasota, Fla., about 57 ml., has published its charter. Branches may also be built. D. C. Gillett is Pres.; W. A. Carter, Secy. and Treas., and E. L. Sparkman, Auditor, all of Tampa. Line, it is said, will be built in conjunction with the Atlantic Coast Line system.

Ga., Rome.—Virginia Iron, Coal & Coke Co. is building a spur from the Rome & Northern R. R., about a mile north of Shackleton, to the L. S. Colyar property, which it has leased. Another spur is being built from Gore to a point on Taylors Ridge, about 1 ml. north, to a new mine. Standard Cooperative Co. of Shackleton is doing the construction. These are in addition to the spur 2 ml. long, which is being built by B. M. Brewer of Rome from Shackleton to the Janet mine, leased by the Matthews Iron & Mining Co.

**Telephones.**—Treasury Dept., Supervising Archt.'s Office, Washington, D. C.—Bids until March 2 for furnishing telephone connections between United States Quarantine Station at Galveston, Tex., and city of Galveston, in accordance with drawing and specification; copies at this office or office of custodian, in discretion of Archt.

**Tractors (Oil or Gasoline).**—Randolph County Trustees, John B. Humble, Chrmn., Ashboro, N. C.—Prices on 1 or more gasoline or oil tractors.

**Truck (Gasoline) and Trailers, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Feb. 20 for delivering cotton canvases, steel conduit, lumber, steel tiller rope, and gasoline truck and trailers at navy-yard. Apply for proposals to Bureau.

**Truck (Motor).**—S. S. Pratt, La Follette, Tenn.—New or used motor truck, 3 to 5 tons capacity.

**Turntable.**—Harvey Co., 113 South St., Baltimore, Md.—60-ft. turntable, 175 tons capacity.

**Water-wheel.**—Holston River Mills, Hillsont, Va.—Prices on 36-in. Morgan Smith or New Success water-wheel, second-hand, for 15 or 20 H. P. under 4-ft. head.

**Water-works.**—City of Alliance, Ohio.—Bids until Feb. 20 to construct reinforced concrete reservoir of 1,500,000 gals. capacity, rebuild pumping station, construct booster pumping station, and install new piping connections to reservoir and force mains; plans and specifications obtainable from Chester & Fleming, Const. Engrs., Pittsburgh, Pa., for \$50.

**Well-drilling.**—Board of Purchase, Savannah, Ga.—Bids until Feb. 13 to drill 12-in. artesian well; specifications obtainable from E. R. Conant, Ch. Engr.; Thos. Halligan, Clerk of Council.

**Well-drilling Machinery.**—Hackett & Bell, Augusta, Ga.—Prices on machinery for boring artesian wells, oil wells and gas wells.

**Wire (Brass, Copper, Steel, etc.).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish annealed brass wire, delivery Philadelphia; soft copper wire, delivery Philadelphia; Norfolk; spring hard brass wire, iron or steel wire, phosphor-bronze wire and crucible steel wire, delivery Norfolk; all schedule 678.

**Woodworking Machinery.**—H. F. Payne, Morganton, N. C.—Prices on broom-handle machinery and on broom handles.

**Woolen Machinery.**—Morristown Blanket Mills, Edward C. Hall, care of W. H. Mullins, Morristown, Tenn.—To buy \$18,000 equipment for manufacturing woolen blankets.

Ga., Thomasville.—Kirby Planing Mill Co. of Thomasville contemplates extending its railroad from Boston, Ga., 8 or 10 ml. to connect with the Seaboard Air Line.

La., Lake Charles.—Christie & Eastern Railroad Co. is organized to build the proposed railroad of the Peavy-Wilson Lumber Co. of Shreveport, from Christie to Longleaf, La., 55 or 60 ml. A. J. Peavy of Shreveport, La., is Pres.

La., New Orleans.—Trans-Mississippi Terminal Railroad Co. is figuring on spending about \$150,000 (not \$250,000, as recently reported) for new train and classification yard at Westwego, 9 ml. north of New Orleans, where there is now a small yard. J. A. Shepherd, New Orleans, is Pres. and Gen. Mgr.

Md., Williamsport.—Engineers are surveying for the Cumberland Valley Railroad near Williamsport for the alleged purpose of constructing a line of lower grades from Powell's Bend bridge, on the Potomac River, to a point near Maugansville, Md., about 15 ml. T. B. Kennedy is Engr. at Chambersburg, Pa.

Miss., Ansley.—Western Lumber Co. is building a railroad from Logtown to Ansley, about 10 ml.

Miss., Hattiesburg.—New Orleans & Northeastern R. R. recently acquired by the Southern Ry., will, it is reported, be double-tracked from New Orleans to Meridian, Miss., about 200 ml. W. H. Wells, Washington, D. C., is Ch. Engr. of Construction of the system.

Mo., Lebanon.—Construction of a railway 25 ml. long, from Lebanon to Edith, Mo., is being considered by C. F. Robertson and others.

N. C., Burnsville.—It is contemplated to build the Black Mountain Railway from

Cane River to Burnsville to connect with the Clinchfield Railway, and the Legislature has been asked to authorize an election in Yancey County for a proposed \$50,000 bond issue to aid construction. W. H. Gardner of Burnsville may give information.

N. C., Cherokee.—Appalachian Railway's proposed extension is from Cherokee to Sepp, 4 ml. Route practically level. W. J. Parks, Newport, Tenn., is Gen. Mgr.

Okla., Bartlesville.—Oklahoma Northern R. R. Co., which proposes to build an electric line from Bartlesville to Columbus, Kans., is reported granted franchise. Branch to Baxter Springs is also proposed. More than 100 ml. of line are contemplated. A. D. Morton and D. B. Mason of Bartlesville and others interested.

Okla., Blackwell.—Atchison, Topeka & Santa Fe Ry. has, it is reported, let contract to L. C. Moore of Newton, Kans., to build branch from Sumter to the Blackwell oil fields, 7 ml.

Okla., Claremore.—Missouri Pacific Railway denies recent press report that it would build a line from Claremore, or near there, to Tulsa.

Okla., Fairmont.—Enid & Northeastern R. R. Co. (not "Northwestern," as previously reported) will open bids for construction and equipment about Mar. 1 for the construction of its projected line from Fairmont via Garber and Bliss to Pawhuska, Okla., 50 ml. through rolling country. Pres., J. A. Frates, Sr.; V.-P. and Gen. Mgr., J. A. Frates, Jr., of Dilworth, Okla.; Secy. and Treas., J. H. Grant; Ch. Engr., Wm. Matthews.

Tenn., Greeneville.—Southern Ry. is reported contemplating construction of 8 ml. line near Greeneville. W. H. Wells, Washington, D. C., is Chief Engr. of Construction.

Tenn., Jackson.—Gulf, Mobile & Northern Railroad is inviting bids until Feb. 10 for the construction of its extension from Middleton to Jackson, Tenn., 40 ml. Address R. P. Parker, Southern Hotel, Jackson.

Tenn., Knoxville.—Southern Railway is reported building additional tracks in connection with yards at the Coster shops. J. B. Akers is Engr. Maint. of Way at Knoxville.

Tenn., Maryville.—Babcock Land & Lumber Co. will build a spur track 1½ ml. long to connect with the Louisville & Nashville R. R. near Maryville; extension of 10 or 15 ml. near Alcoa, Tenn., is also proposed.

Tex., Aransas Pass.—Aransas Harbor Terminal Ry. Co. has, it is reported, arranged for the rebuilding of its storm-damaged line by Tuttle, Chambers & Co. of San Antonio, Tex. John D. Wheeler is V.-P.

Tex., Corpus Christi.—The Corpus Christi Traction Co., organized to build an electric railway to Ward Island, 8 ml., has abandoned the plan to build a loop line in the city on Water, South Second and other streets and will build only to its terminal station. The franchise will be amended accordingly.

Tex., Dallas.—Missouri, Kansas & Texas Railway will elevate its tracks in North Dallas to eliminate dangerous grade crossings. L. F. Lonnbladh, Dallas, is Chief Engr.

Tex., Lockhart.—The San Antonio & Aransas Pass Ry. Co. says, in a letter to the Manufacturers Record: "At the present time we have no work in contemplation covering enlargement of our yards at Lockhart." This refers to a recent press report which said that they might be increased in size.

W. Va., Bluefield.—A movement to build an electric railway from Bluefield through the coal fields is reported in progress. It would be about 50 ml. long and, according to estimates, would cost about \$4,000,000. Chamber of Commerce may be able to give information.

W. Va., Fairmont.—Monongahela Valley Traction Co. proposes the following construction: Lumberport via Ten-Mile Creek to Dola, Brown and Wallace, W. Va., approximately 9 ml.; Wolf Summit to Salem, W. Va., 8½ ml.; Bridgeport via Flemington to Philippi, W. Va., 20 ml. Surveys made for the second of these lines and it is also expected to build to Flemington this year. James O. Watson, Fairmont, is Pres.

W. Va., Gauley Bridge.—Kanawha & Michigan Railway, it is announced, will start construction early in the spring upon contemplated extension from Gauley Bridge to Peters Creek, about 20 ml. Estimated cost \$1,000,000. C. M. McVay is Engr. Maint. of Way at Charleston.

W. Va., Sago.—Baltimore & Ohio R. R. will build a new line 2½ ml. long from Sago to

Hampton, W. Va., to connect with the Coal & Coke Ry. and avoid a very heavy grade. Cost about \$100,000. R. N. Begien, Baltimore, Md., is Chief Engr.

W. Va., Weston.—Baltimore & Ohio Railroad, it is reported, will spend about \$100,000 for improvements in the vicinity of Weston. R. N. Begien, Baltimore, is Chief Engr.

### STREET RAILWAYS

Ark., Pine Bluff.—Pine Bluff Corp. is reported acquired by J. H. Watkins of Memphis, Tenn.; W. C. Ribenack of Thornton and Little Rock, Ark., and others, and improvements to railway may be made. F. G. Bridges is Pres.

Tex., San Antonio.—San Antonio Traction Co. proposes to build an extension several miles long. W. B. Tuttle is V.-P. and Gen. Mgr.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### FINANCIAL CORPORATIONS

Ala., Guntersville.—First National Bank of Guntersville has made application for charter; capital \$25,000.

Ala., Montgomery.—A Morris Plan bank is being organized by B. P. Crum, W. DeC. Kessler, Ray Rushton, R. E. Seibels and M. A. Vincentelli.

Fla., Jacksonville.—Bank & Trust Co. of Florida has filed articles of incorporation; capital \$500,000. J. L. Medlin, Pres.; C. W. Ward, 1st V.-P.; J. G. Lewis, 2d V.-P.; R. S. Hall, Secy., and M. O. Overstreet, Treas.

Ga., Colquitt.—Colquitt Exchange Bank chartered; capital \$40,000, surplus \$10,000; S. M. Waden, Pres.; J. M. Shingle, V.-P., and H. S. Harrell, Cash. Business has begun.

Ky., Louisville.—Rent Guarantee & Trust Co. has filed articles of incorporation; capital \$5000. Incorporators: M. F. Haney, William Gilmore and William H. Haney.

La., Lake Charles.—Farmers Loan & Mortgage Co., capital \$1,000,000, is organized with W. J. Dubig, Pres.; J. A. Landry, 1st V.-P.; W. G. Stranage, 2d V.-P.; Frank Warren, Secy.-Treas. Offices will be in the Chavanne Bldg.

La., Monroe.—A new national bank with capital of \$100,000 and surplus \$50,000 has been organized by E. R. Bernstein and others. The Chamber of Commerce is also said to be interested.

Md., Baltimore.—Security Investing Corp., 1320 Munsey Bldg., is inceptd. by E. McClure Rouzer, Enos S. Stockbridge and Wilhelm Lentz.

N. C., Albemarle.—First National Bank has made application for charter; capital \$25,000.

N. C., Durham.—A Morris Plan bank with capital of \$50,000 is being organized by Fred A. Hull, Julian S. Carr, B. F. Kronheimer, J. S. Carr, Jr., W. J. Holloway, Southgate Jones, J. B. Mason and John Sprunt Hill.

N. C., Pineville.—A building and loan association is reported organized by the Pineville Board of Trade.

N. C., Winston-Salem.—Home Mutual Life, Accident & Health Co. is chartered. Incorporators: William Porter, J. A. Holoman, J. Z. Pfaff, W. P. Baine, T. A. Porter, W. C. Bennett, Thomas J. Bryan, of Winston-Salem, and J. G. Kerner, O. W. Kerner and F. F. Kerner, of Kernersville.

Okla., Dilworth.—Dilworth State Bank, inceptd.; capital \$15,000; surplus \$1500. C. A. Gwinn, Newkirk, Pres.; F. R. Zacharias, Enid, V.-P.; W. E. Carey, Dilworth, Cash. Business began Jan. 22.

Okla., Okilton.—First National Bank has made application for charter; capital \$25,000.

Okla., Kusa.—First National Bank has made application for charter; capital \$25,000.

S. C., Blackville.—The Commercial Bank has begun business; capital \$25,000. A. M. Denbow, Pres.; C. J. Fickling, V.-P.; C. W. Rentz, Jr., Cashier.

S. C., Charleston.—Charleston Perpetual Building & Loan Association has begun business with offices at 33 Broad St. Andrew A. Kroeg, Pres.; Hall T. McGee, V.-P.; Joseph E. Jenkins, Secy. and Treas.

Capital and Surplus  
\$4,000,000



Total Resources  
\$38,000,000

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Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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JNO. M. MILLER, JR., Vice-Pres.

W. M. ADDISON, Cashier.

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FOSTER HAMILTON - Cashier

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Second National Bank Building

TOLEDO, OHIO

S. C., Dillon.—Dillon Mutual Building & Loan Association is chartered; capital \$50,000 to \$120,000. G. G. McLaurin, Pres.; W. J. Adams, V.-P.; J. V. Malcolm, J. M. Sprunt, J. H. Hamer, A. B. Jordan, J. P. Lane, J. E. Betha and LeRoy Williams.

S. C., Greenville.—A trust company is being organized by A. D. L. Barksdale, B. E. Geer and C. M. McGee. Business is to begin about March 1.

Tex., Anna.—The Collin County State Bank of Anna has absorbed the Continental State Bank; capital \$35,000.

Tex., Brownboro.—First State Bank, which took over the Brownboro Bank, a private institution, has begun business. J. T. Larue, Athens, Pres.; Ivy Fulgham, Cashier.

Tex., Dallas.—American Bond & Mortgage Co., 621 Busch Bldg., Incptd.; capital \$50,000. Directors: L. A. Casey, Pres. and Treas., Dallas; R. A. Richey, V.-P. and Secy., and P. E. Gragg, San Antonio. Business has begun.

Tex., Dime Box.—First State Bank of Dime Box is chartered; capital \$15,000. C. C. Nelms is Pres., and H. R. Kelly, Cashier.

Tex., El Paso.—Border National Bank, Incptd.; capital \$200,000; surplus \$50,000. Incptrs.: Crawford Harvie, T. M. Quebedeaux, A. J. Schultz, E. M. Whitaker and F. J. Garrett. Business is to begin about March 1.

Tex., El Paso.—Montague Trust Co., capital \$150,000, is incptd. by James L. Marr, W. K. Marr, W. R. Piper and others.

Tex., Elmo.—First Guaranty State Bank Incptd., capital \$10,000; Geo. W. Riddle, Pres., Dallas; E. J. Jobe, V.-P., and Earl Wheeler, Cashier, Elmo. Business has begun. This succeeds the Citizens' Bank.

Tex., Fort Worth.—A new private bank has been established at 305 W. Seventh St. under the name of W. R. Edrington & Co. Those interested are W. R. Edrington and R. C. Hearne of Fort Worth, and Charles A. Penn, New York City.

Tex., Matador.—First National Bank has made application for charter; capital \$30,000.

Tex., Seguin.—Citizens' State Bank, capital \$35,000, is organized with W. J. Blumberg, Pres.; George Hayn, First V.-P.; E. E. Fischer, Second V.-P., and H. E. Drager, Cash.

Tex., Spearman.—Spearman National Bank has made application for charter; capital \$25,000.

Tex., Plano.—Plano National Bank and the First Guaranty State Bank have consolidated under the name of the former institution.

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Secy. Board of Trustees. Address D. M. Hollins, Secy. Board of Public Instruction, Pinellas County, Clearwater, Fla.

Fla., Tavares—(Road, Bridge).—Bids will be received until noon Feb. 15 by H. H. Duncan, Clerk Board of County Commrs. Lake County, for \$65,000 of 6 per cent. bonds Howey Special Road and Bridge Dist.; dated Jan. 1, 1917; maturity Jan. 1, 1927, to Jan. 1, 1947.

Ga., Augusta—(School).—Bids will be received until noon April 3 for \$100,000 of 4½ per cent. 1-10-year bonds. Address L. B. Evans, Secy. Bd. of Education of Richmond County.

Ga., Barnesville—(Street, Sidewalk).—\$10,000 street and \$5000 sidewalk paving bonds are voted. B. M. Turner is Mayor.

Ga., Cairo—(Sewer).—Election is to be held March 20 to vote on \$28,000 bonds. Address The Mayor.

Ga., Camilla—(School).—Election is to be held Feb. 26 to vote on \$5500 of 6 per cent. 30-year Hopeful School Dist., Mitchell County, bonds; L. H. Hayes, G. B. Sawyer and C. B. Cox, Trustees.

Ky., Carrollton—(School).—Bids will be received until 1 P. M. Feb. 16 for \$25,000 of 5 per cent. \$1000 denomination bonds Carrollton Graded Common School Dist. Maturity \$1000 each year, beginning Mar. 1, 1919. J. P. Wheeler is Chrmn. Board of Trustees.

Ky., Crofton—(School).—\$70,000 of bonds for new school at Crofton, in Christian County, are voted. Address Board of Education.

Ky., Danville—(School).—\$60,000 of 4 per cent. bonds Danville Graded Common School Dist., dated Jan. 1, 1917, and maturing \$2000 annually beginning Jan. 1, 1918, will be sold at 2 P. M. Feb. 21 at public auction; denomination \$500. C. G. Crooks is Prest. and Sam Lyons Secy. Board of Trustees.

Ky., Hopkinsville—(School).—\$7000 of high school bonds are voted. Address Board of Education.

Ky., Lexington—(Street).—Bids were received until 10 A. M. Feb. 6 for \$5121.71 of 6 per cent. bonds. Award not stated. James C. Rogers is Mayor.

Ky., Richmond—(Water).—Report that election will be held in Mar. to vote on \$50,000 of bonds is denied by B. R. Dougherty.

La., Alexandria—(School).—\$20,000 of 5 per cent. bonds of Lamourie School Dist. No. 32, Rapides Parish, have been purchased by the Whitney-Central Trust and Savings Bank.

La., Baton Rouge—(State Certificates).—Bids will be opened Feb. 23 for \$400,000 of 5 per cent. \$10,000 denomination notes issued by State Penitentiary to liquidate outstanding indebtedness. Dated Jan. 1, 1917 and maturing \$40,000 yearly for 10 years beginning Jan. 1 1918. Henry L. Fuqua is Gen. Mgr., State Penitentiary.

La., Bunkie—(Road).—\$100,000 of 5 per cent. bonds Tenth Ward Road Dist. No. 11, Avoyelles Parish, have been purchased by the Merchants and Planters' Bank of Bunkie at par, accrued interest and \$3100 premium.

La., Donaldsonville—(Road).—Bids will be received until 11 A. M. Feb. 28 by L. Newman, Prest. Board of Supvrs. of Ascension Parish, for \$50,000 of 5 per cent. bonds.

La., Gueydan—(Drainage).—\$205,000 of 5 per cent. Sub-District No. 5 drainage-system bonds have been purchased by Watson, Williams & Co., New Orleans.

La., Lafayette—(Road).—Election is to be held in Lafayette Parish March 7 to vote on \$300,000 of bonds. Address Police Jury.

La., Rayville—(School).—The sale of \$75,000 of 5 per cent. Richland Parish school bonds, for which bids were asked until Feb. 20, is postponed. E. E. Keebler is Secy., Treas. and Supt. of Richland Parish School Board.

La., Shreveport—(Refunding).—\$486,000 of 4½ per cent. refunding bonds have been purchased by the Hibernia Bank & Trust Co. of New Orleans and the First National Bank of Shreveport at \$11,100 premium.

Miss., Ackerman—(Road).—Bonds of Fentress Dist., Choctaw County, were offered Feb. 5. Award not stated. F. G. Coleman is Highway Commr.

Miss., Fayette—(School).—Application is to be made to the Board of Supvrs. Jefferson County for authority to issue \$5000 of Union Consolidated School Dist. bonds. C. B. Young is County Supt. of Education.

Miss., Gulfport—(Road).—\$3500 of bonds are voted. Address The Mayor.

Miss., Hattiesburg—(Road).—\$100,000 Forrest County bonds for Dixie and Jackson Highways are voted. Address Board of Supvrs.

Miss., Meridian—(Refunding).—Election is to be held March 2 to vote on \$28,950.37 of bonds. R. L. Banks is City Clk.

Mo., Trenton—(School).—Election will probably be called to vote on from \$60,000 to \$75,000 of Trenton School Dist., Grundy County, bonds. Address Board of Trustees.

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Mo., Warrensburg—(Drainage).—Election  
is to be held in Johnson County Feb. 9 to  
vote on \$75,000 of bonds. Address County  
Commr.

N. C., Burnsville—(Railway).—Application  
has been made to the Legislature for au-  
thority to hold an election in Yancey Coun-  
ty to vote on \$50,000 of railway-aid bonds.  
Address County Commrs.

N. C., Lumberton—(Water, Light).—Bids  
will be received until noon Feb. 21 for \$51,-  
000 of 5 and 5½ per cent. 20-year bonds;  
denomination to suit purchaser. Ira B.  
Townsend is Clk. and Treas. Further par-  
ticulars will be found in the advertising  
columns.

N. C., Rutherfordton—(School).—Election  
to vote on \$25,000 Forest City School Dist.,  
Rutherford County, bonds will be held Feb.  
10. Address County Commrs.

N. C., Wilson—(Water, Sidewalk).—Bids  
will be received until 7.30 P. M. Feb. 9 for  
\$50,000 of water and \$32,000 sidewalk 4½  
per cent. bonds. T. A. Hinant is Clerk Board of  
Commrs.

N. C., Winston-Salem—(Municipal Mort-  
gage).—\$80,000 of 4½ per cent. municipal  
mortgage bonds, dated March 1, 1917, and  
due \$5000 annually March 1, 1918, to March 1,  
1933, have been purchased by Robert Garrett  
& Sons, Bankers, Baltimore.

Okl., Ardmore—(Fire Department, Fair  
Park).—\$40,000 fire department and \$15,000  
of fair park improvement bonds are voted. Ad-  
dress The Mayor.

Okl., Checotah—(Water).—\$125,000 of 6 per  
cent. 25-year \$1000 denomination bonds have  
been purchased at 104 by R. J. Edwards,  
Oklahoma City.

Okl., Lindsay—(Sewer).—Town con-  
templates issuing bonds. Election not yet called.  
W. H. Lister is Prest. Board of Trustees.

Okl., Muskogee—(Highways, Bridges).—  
Election is to be held March 6 to vote on  
\$100,000 of Muskogee County bonds. Address  
County Commrs.

Okl., Tishomingo—(School).—\$8000 of 6  
per cent. 20-year bonds have been purchased  
by Robinson & Taylor, Oklahoma City.

Okl., Tonkawa—(Fire Department).—\$10,-  
000 of fire-department bonds are voted. Ad-  
dress The Mayor.

Okl., Tonkawa—(City Hall).—Election is  
to be held in near future to vote on \$10,000  
of 6 per cent. 10-year bonds. Address The  
Mayor.

Okl., Tulsa—(School).—Election to vote  
on \$500,000 of bonds postponed from Feb. 6 to  
Feb. 20. J. H. Simmons is Mayor.

Okl., Wewoka—(Water).—City has voted  
\$47,000 bonds. Address The Mayor.

S. C., Anderson—(Street).—Election is to  
be held Feb. 26 to vote on \$125,000 of bonds.  
J. H. Godfrey is Mayor.

S. C., Chester—(Road).—Election is soon  
to be held to vote on \$450,000 of bonds. Ad-  
dress County Commrs.

S. C., Laurens—(Road).—A bill has been  
introduced in the Legislature providing for  
the issuing of \$300,000 of Laurens County  
bonds. Address County Commrs.

Tenn., Cornersville—(Sidewalk).—Bids  
will be received until noon Feb. 15 by T. L.  
Coleman, Town Recorder, for \$6000 of 6 per  
cent. 10-20-year \$300 denomination bonds,  
dated Sept. 1, 1916.

Tenn., Maryville—(School).—Bids will be  
received until March 15 for \$50,000 of 5 per  
cent. bonds. Address Geo. D. Roberts, City  
Clerk.

Tenn., Nashville—(Schools).—Question of  
issuing bonds is only being discussed at the  
present time; matter would have to be  
finally passed upon by the State Legislature.  
J. J. Keyes is Supt. of Schools.

Tenn., Nashville—(City Notes).—\$350,000 of  
city of Nashville revenue anticipation notes  
have been purchased by Kaufman-Smith-  
Emert Investment Co., St. Louis, Mo. It is  
further stated that in order for the city to  
meet its ordinary expenses this year about  
\$250,000 of notes additional will be borrowed  
in June. Paul W. Treanor is Commr. of  
Finance.

Tenn., Somerville—(Refunding).—Applica-  
tion is to be made to the Legislature for  
authority to issue \$15,000 of water and light  
refunding bonds. Address The Mayor.

Tex., Athens—(Water, Sewer).—\$32,000 of  
warrants for water-works and sewerage  
have been voted by the City Council and  
sold to a San Antonio firm. Address The  
Mayor.

Tex., Austin—Bonds approved by Attorney  
General: \$100,000 sewer and \$80,000 water-  
works 5 per cent. Port Arthur, \$50,000 5 per  
cent. 10-40-year Wichita County bridge, \$25,000

of 5 per cent. 30-year Waco bridge and cul-  
vert.

Tex., Batesville—(Road, Bridge).—\$11,000 of  
5 per cent. 10-40-year Zavalla County bonds  
have been purchased by J. L. Arlitt, Austin,  
Tex.

Tex., Brownwood—(School).—\$50,000 of 5  
per cent. 40-year bonds are voted. H. C. Mc-  
Gown is Mayor.

Tex., Bryan—(Sewer).—\$8000 of bonds have  
been purchased by J. E. Jaffett & Co., San  
Antonio, for \$3357 and accrued interest.

Tex., Charco—(School).—Bids will be re-  
ceived until 2 P. M. Feb. 10 for \$8000 of 5 per  
cent. \$500 denominational bonds Charco In-  
dependent School Dist. Address J. E. Cal-  
houn, Charco, Tex. R. E. Roberts is Secy.

Tex., Center—(Road).—\$120,000 of 6 per  
cent. \$500 to \$8500 denomination Shelby Coun-  
ty time warrants, dated Jan. 9, 1917, and  
maturing 1918 to 1946, have been purchased  
at par and accrued interest by Cummings  
& Pruden Co., Toledo, Ohio.

Tex., Clarksville—(School).—\$90,000 of  
bonds are voted. Address Board of Educa-  
tion.

Tex., Clifton—(Flood Protection).—\$160,000  
of bonds for flood protection and bridge  
building are voted. Address The Mayor.

Tex., El Paso—(School).—\$10,000 of 5 per  
cent. 10-40-year bonds Smelter Common  
School Dist. No. 3, El Paso County, have  
been purchased at par, accrued interest and  
premium of \$225.

Tex., Italy—(School).—\$23,000 Italy Inde-  
pendent School Dist. bonds have been pur-  
chased at \$92.89 premium by G. C. Wood,  
Dallas.

Tex., Lockhart—(Sewer).—\$35,000 of bonds  
have been sold at a premium and accrued  
interest amounting to about \$1700. Address  
The Mayor.

Tex., Megargel—(School).—Election was  
held Feb. 3 to vote on \$10,000 of bonds. Ad-  
dress Board of Education.

Tex., Pearsall—(School).—Bids will be  
opened May 1 for \$6000 of 5 per cent. 20-year  
\$1000 denomination bonds, Frio County Com-  
mon School Dist. 15, dated Nov. 23, 1916. Ad-  
dress G. H. McCandless, Melton, Tex.

Tex., Runge—(School).—Bids will be re-  
ceived until 2 P. M. Feb. 10 for \$8000 of 5  
per cent. 1-16-year school building and equip-  
ment bonds, dated March 1, 1917. Denomi-  
nation \$500. J. C. Calhoun is Prest. School Bd.,  
care Runge National Bank.

Tex., San Marcos—(Road).—\$75,000 of 5 per  
cent. 40-year \$1000 denomination bonds, Road  
Dist. No. 3, Hays County, have been pur-  
chased at par, accrued interest and \$1203  
premium by J. E. Jarrett & Co., San An-  
tonio.

Tex., Tullia—(School).—\$8500 of 5 per cent.  
bonds Happy Independent School Dist. have  
been purchased by the Bankers' Securities  
Co. of Denver.

Tex., Waco—(Street, Sewer, Park).—Election  
is soon to be called to vote on \$25,000 of  
bonds. Address The Mayor.

Va., Portsmouth—(School).—Bids will be  
received until noon Feb. 17 for \$150,000 of 4  
per cent. 30-year bonds; dated Mch. 1, 1917;  
denominations \$500 and \$1000; L. C. Brinson,  
City Auditor. C. H. Herbert is Chrmn.  
Dept. of Finance of City Council.

W. Va., Adamston—(School).—Bids will be  
received until 2 P. M. Feb. 20 by E. H.  
Bates, Prest. Bd. of Education, for \$90,000  
of 5 per cent bonds.

W. Va., Charleston—(Road).—\$90,000 of 5  
per cent. Loudon Dist., Kanawha County  
road-improvement bonds have been purchased  
at \$4802 premium by Fields, Richards & Co.,  
Cincinnati.

W. Va., Ceredo—(Paving).—Election is to  
be held Feb. 17 to vote on \$33,000 of 5 per  
cent. 33-year \$500 denomination bonds. E. H.  
Smith is Mayor.

W. Va., Fairmont—(Road).—Election is  
to be held Mch. 7 to vote on \$650,000 of Lin-  
coln Dist., Marion County, bonds. Address  
County Commrs.

W. Va., Moundsville—(School).—\$35,000 of  
Wells High School annex bonds have been  
purchased at \$356 premium by Rudolph Kley-  
bolt Co., Cincinnati.

**FINANCIAL NOTES**

The annual convention of the Missouri  
Bankers' Association will be held at St.  
Joseph, Mo., May 22 and 23.

The First National Bank of Boston is ex-  
tending its work abroad by opening a branch  
at Buenos Aires, South America, with Noel  
F. Tribe, who has resided in Argentina for  
20 years, as manager.



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Main Street, Covert, Michigan. Sixteen feet in center treated with "Tarvia-B."



West Michigan Pike, between Covert and South Haven, Treated with "Tarvia-B."

*From the office of the Covert (Mich.) Township Board comes this letter, dated August 7, 1916:*

I feel a great deal of satisfaction over the fact that your Mr. Clark persuaded us, against our will, to adopt "Tarvia-B" for a road preservative. The first mile of road built by us, owing to inexperience, poor equipment and the use of road oil, was deemed by us to be in a condition where it would have to be scarified and resurfaced. By the use of your "Tarvia-B" we now have it in a condition where, by its smoothness and solidity, it will give us good and continuous service. Our other road, built with more experience, better equipment and Tarvia, I believe is the equal of any stone road in the State. Our entire community are enthusiastic Tarvia fans. I can truthfully say our entire Township Board is ready at all times to recommend the use of your Tarvia products to any community looking for good, durable and smooth roads.


(Signed) ROBERT TRIPP,  
Highway Commissioner,  
Covert Township.

#### Special Service Department

This company has a corps of trained engineers and chemists who have given years of study to modern road problems.

The advice of these men may be had for the asking by anyone interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.



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It is the logical result of this safety movement that during the past three years over half a billion passengers — 553,890,063 — more than five times the total population of the United States—have been carried over the lines of the Pennsylvania Railroad System without the loss of the life of a single passenger in a train accident. On the Pennsylvania Railroad east of Pittsburgh a perfect record for four years has been made, during which a total of 616,626,957 passengers were safely carried.

With the continued co-operation of our faithful employees, to whom great credit is due, we hope to maintain the record we have established.

# PENNSYLVANIA RAILROAD

*The Standard Railroad of the World*

### Book Reviews.

West Virginia Geological Survey, Jefferson, Berkeley and Morgan counties. By I. C. White, State geologist, and G. P. Grimsley, assistant geologist. Published by the Wheeling (W. Va.) News Lithographing Co. Cloth-bound. 644 pages and supplementary maps.

Within the area treated in this volume, one of the series of geological survey reports on groups of West Virginia counties, is said to be probably the greatest and most valuable deposits of limestone and dolomites in the United States. Instead of having the supposed thickness of 5000 to 6000 feet of West Virginia Eastern Panhandle "valley limestones," they have been found to be approximately 10,000 feet thick. Low-grade semi-anthracite coal is found in Berkeley and Morgan counties that is expected in the future to become valuable as fuel with the partial exhaustion of easily won coal fields and the improvement of low-grade fuel-burning appliances. Horticulture has undergone a large growth in the area described. Other mineral deposits make this section of geological interest and economic value to the State and country.

Manufacturing Costs and Accounts. By A. Hamilton Church. Published by McGraw-Hill Book Co., Inc., 239 W. 39th street, New York. Cloth-bound. 252 pages.

In writing this book the author had in mind supplying a treatise within reasonable bounds of length that would permit the student of accountancy to apply his reading to the particular problems he might meet. In this respect the author considers it somewhat different from any other existing work. He has attempted to avoid elaborating on any one system (on which there are already able treatises), thereby obscuring or entirely losing the main thread of the subject. This volume, therefore, is intended to present a comparatively simple view of the general structure of cost accounts. One of the great difficulties with the cost accountant, he considers, is that, living in a world of detail as he does, the cost accountant is apt to undervalue the broader groupings that alone interest the general accountant as a rule. Details are necessarily and purposely left out here. Cost accounting fundamentals, the why and wherefore of it, constitute the book's peculiar field.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Temporary Supply Company Representative.

R. H. Wilson, who has been in charge of the steel piling department of the Walter A. Zelnicker Supply Co., St. Louis, Mo., is temporarily representing this company at 919 Hennen Bldg., New Orleans, La.

### Electrical Development.

Work has begun on the pole lines being erected by the Utilities Development Corporation, Chicago, Ill., in connection with its contract for construction work in Southwestern Indiana for the Indiana Power & Water Co.

### Opens Consulting Engineering Office.

W. W. Taylor announces that he has opened offices in the People's National Bank Bldg., Lynchburg, Va., as consulting mining and chemical engineer, and is prepared to examine properties and processes and report on same.

### Rapid Business Expansion.

Increase of business in 1916 over that of 1915 of the Union Chain & Manufacturing Co., Seville, O., was 800 per cent., according to a recent announcement. Facilities will be enlarged, for which \$25,000 worth of machinery has been ordered. At the annual meeting all the officers were re-elected.

### Corrected Announcement.

The Burdett Oxygen Co. will begin operation of its Oklahoma plant, located at the Steekyards Station at Oklahoma City, on February 15, and will be in a position to furnish oxygen to users in that territory. This is the twelfth plant installed by the Burdett Company in the various industrial centers of the country.

### Repair Fire Damage Immediately.

Only about 10 per cent. of the employees of the Virginia Bridge & Iron Co., Roanoke, Va., will be temporarily affected, and the output of bridges and structural steel will not be seriously curtailed by the recent destruction by fire of the company's machine shop and damage to the electrical department and storeroom, all of which will be rebuilt and repaired immediately.

### Sales Offices Established.

In order to be more accessible to its growing trade, the Flat Top Fuel Co., Bluefield, W. Va., has established Eastern and Western sales headquarters. Victor R. White is Western manager, with office in the Union

Trust Bldg., Cincinnati, O., the Chicago office being continued at 1606 Lytton Bldg. Harman Woodward is Eastern manager, with office in the Citizens' Bank Bldg., Norfolk, Va. A New England representative will shortly be announced.

### Opens Branch Office.

The Jeffrey Manufacturing Co., Columbus, O., announces the opening of a branch office at 421-3 Rockefeller Bldg., Cleveland, O., in charge of W. E. Holloway and C. B. Reed, both of whom have been connected with the company a number of years in successful sales and engineering work, and should prove of assistance to customers in solving elevating, conveying, screening, crushing, pulverizing, transmission and mining machinery problems.

### White Company Elections.

Douglas I. McKay and Sanger B. Steel have been elected vice-presidents of J. G. White & Co., Inc., New York. Mr. McKay, at one time Police Commissioner of New York, has been connected with the company over two years as assistant to the president. Mr. Steel was previously manager of the Chicago office of the Boston, Mass., banking and brokerage firm of Paine, Webber & Co. His new work will be in the handling and distribution of securities.

### Extends Auditing Business.

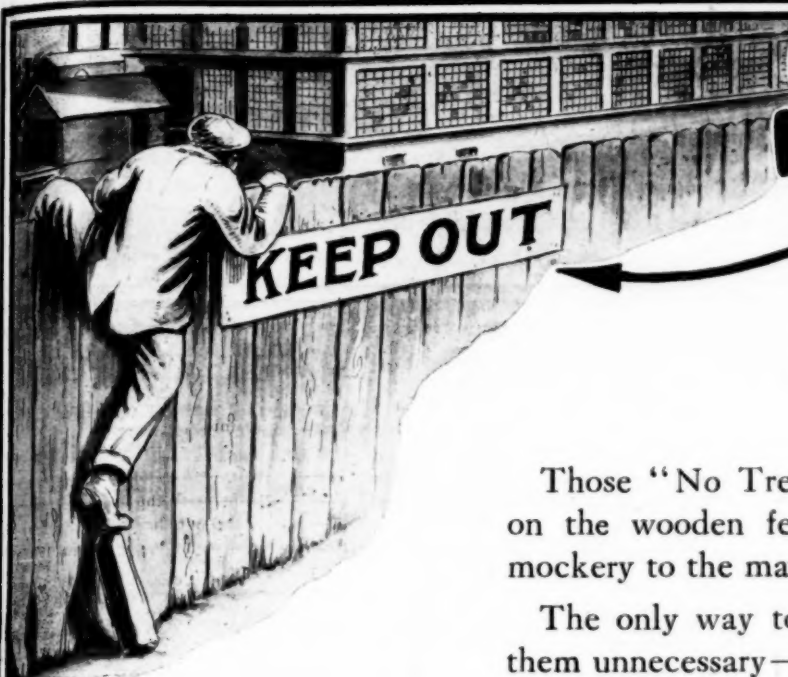
The Alabama Audit Co. of Montgomery, Ala., has extended its business interests and connections by establishing a branch office in Mobile, Ala., which was occasioned by the rapid growth of the business throughout Southern Alabama. The new branch has been opened in the Van Antwerp Bldg. Mr. F. C. Horton, who is an expert in the audit line, is in charge. This is an enterprise that enjoys the support of the largest corporations and concerns throughout the State.

### Staunton Brick Co.

Common and tapestry brick is now being manufactured by the Staunton (Va.) Brick Co., which began operations last November. Later the company will manufacture tile, fireproofing and paving brick, its materials having been thoroughly tested and found excellent for these products. The company has plenty of soft shale for its purposes, and its initial installation of machinery, daily capacity 60,000 bricks, was furnished by the J. D. Fate Company of Plymouth, O.

[Continued from Page 81.]





The Board Fence, even when new, offers little resistance to intrusion and soon calls for annual repairs.

# Signs that Fail

Those "No Trespassing" signs which you have placed on the wooden fence around your factory grounds are a mockery to the man whom you wish to "Keep Out."

The only way to make such signs effective is to make them unnecessary—**make trespassing impossible.**

"You Can't Get In" is better than "Keep Out."

We have solved this problem satisfactorily for many of the large factory plants of America.

# Cyclone

Chain  
Link  
Woven  
Steel

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Protection  
Fence

Small  
mesh of  
Chain-Link fabric  
leaves no toe hold,  
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over impossible.

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Posts are of  
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—the strongest form of  
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weak side.

## NO DAMAGE DURING STRIKE

EQUINOX MILL  
Anderson, S. C.

Cyclone Fence Company, Waukegan, Ill.:

Gentlemen—Referring to your favor of the 16th, both in regard to this mill and the Gluck Mills, which are under the same management, beg to say that our fence certainly came in well during our strikes, and we feel that it has been of great value to us in protecting our property, as it has kept all the trouble on the outside, and we have had no damage to our mill buildings.

Yours very truly,

ROBT. E. LIGON,  
General Manager.

REL T.

Nov. 18, 1916.

*Illustrated Catalog, showing many styles  
of fence construction, sent free on request.*

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Cyclone Fence leaves your grounds open to public view from all sides, yet forms an impregnable barrier against intrusion.

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We supply construction engineer at nominal cost and guarantee every fence we erect.



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 Analyses of Iron, Steel, Ores, Alloys, Coal, Sand, Clay and Cement.  
 39 South Tenth St.      PHILADELPHIA, PA.

## INDUSTRIAL NEWS OF INTEREST

(Continued from Page 76.)

**Iron Works Advertising Manager.**  
 In the reorganization of its advertising department, the La Belle Iron Works, Steubenville, O., and Wheeling, W. Va., has secured as advertising manager G. P. Blackiston, who has been eighteen years in the steel business, the latter half of which he has specialized on publicity, having acted as advertising manager for several prominent steel manufacturers.

**Newman Plant Enlarged.**  
 The Newman Manufacturing Co., 719 Sycamore St., Cincinnati, O., and 68 W. Washington St., Chicago, Ill., has added another floor 40x175 feet to the Cincinnati plant, making it six stories. This firm, which manufactures brass and bronze work, bank and office grilles, railings, machine tool attachments, etc., is expanding with rapid strides. Representatives of the company are reporting promising prospects for this year.

## For Cutting Hardwood.

The Soule Steam Feed Works, Meridian, Miss., has just shipped to the Basilan Lumber Co., Philippines, one of its heaviest size steam feed and rope drum outfits, which is the first of a large shipment of several to be installed in the latter's mills for cutting the extremely hard woods of that country. Work accomplished by these machines is said to have been the means of opening up and developing this lumber business.

## Auditing Company Organized.

The State Public Service Utility Audit & Investigating Co. has organized with W. J. Blenemann, C.P.A., Prest.; R. W. Wright, Jr., Secy. and Treas.; W. C. Klicker, Atty., and established offices at 306-7 Kanawha National Bank Bldg., Charleston, W. Va. Experience in corporation, counting-house, railroad, Government, mercantile, manufacturing, mining, utility and municipal accounting is said to have placed Mr. Blenemann in a position to handle this class of work with dispatch and satisfaction. Mr. Wright also has seen considerable experience in this field.

## For the Benefit of General Electric Employees.

A recently organized industrial service department of the General Electric Co., Schenectady, N. Y., to supervise education, employment and provision of opportunities for advancement of the employees, will be headed by E. B. Merriam, assistant engineer of the switchboard department, who has been with the company for sixteen years and become a well-known member of the American Institute of Electrical Engineers. He brings to his new position a sympathetic understanding of the situation.

## Enters Private Engineering Field.

Fred Bennett, for more than four years highway engineer of Bexar County, Texas, of which San Antonio is the county-seat, resigned his office January 25, to become effective not later than February 10. Mr. Bennett makes this change to move to Denison, Texas, and become one of the members of the firm of Julian C. Field & Co., consulting engineers. Mr. Bennett was associated with Julian C. Field during 1910-11 with the building of the Denison road system, after which time he went to San Antonio to become highway engineer for Bexar County, and during his incumbency in that position he built the Bexar County highway system at a cost of slightly over \$1,500,000, and since the completion of this road system has inaugurated a very complete and effective maintenance system for the county roads.

## Ore Washers and Screens.

On the large sales list of recent date of the Davis Foundry & Machine Works, Rome, Ga., are records of the following sales of washers and screening outfits for washing iron ore, manganese, barytes and zinc ores: Sugar Valley Land Co., Sugar Valley, Ga., two four-log washers with sand screens and picking belts; two two-log outfits to each of the following, located at Cartersville, Ga.: Thompson-Weinman Company, Big Creek Mining Co.; the same to each of the following: New Riverside Ochre Co., Cartersville and Emerson, Ga.; Nulsen-Klein-Krauss Co., Cartersville and St. Louis, Mo.; W. R. Satterfield, Emerson, Ga.; one complete outfit each to Bertha Mineral Co., Paga Mining Co., Big Tome Barytes Co. and New Jersey Zinc Co. of Cartersville; Krebs Pigment & Chemical Co., Cartersville and Newport, Del.; Alabama Mining & Mineral Co., Guntersville, Ala.; one single-log washer and sand screen to the Drexel Chemical Co., Sweetwater, Tenn.; single-log washer for washing zinc ores, made in sections to permit of transporting on muleback through a mountain pass, to the International Railways Co., Guatemala, Central America.

## TRADE LITERATURE

### Pipe Standards Book Appendix.

The National Tube Co., Pittsburgh, Pa., has issued an appendix of 200 pages to its Book of (pipe) Standards. In the back of the original book is a piece of tape that fits over the appendix flap, holding it firmly and thus making the appendix an integral part of the volume. An index contained in the latter covers the two issues in one, the original volume and the appendix.

### In the Interest of Employees.

A unique method of furnishing its employees with news of the company and fellow-employees has been adopted by the Shepard Electric Crane & Hoist Co., Montour Falls, N. Y. Most of the space on the front page of the local paper, the Free Press, has been secured for every Wednesday, when it is devoted to "Shepard News," thus combining the house paper and daily newspaper.

### Importance of a Mark.

A book has recently been issued by Rickard & Sloan, Inc., 30 Vesey St., New York, entitled "A Mark and Its Import," and giving a brief and interesting account of the services of the company, with some samples of its work in planning and directing productive advertising. Concerns interested in technical or mechanical advertising and publicity can secure copies on request.

### Bitosan Asphalt Pavement.

Two chief subjects of interest in connection with Bitosan asphalt paving, manufactured by the United States Asphalt Refining Co., 90 West St., New York, are treated in a folder issued by the company. On one side is a description of the material; on the other, general specifications for Bitosan pavement, with the subheads on the foundation course and wearing surface.

(Continued on Page 86.)

# Classified Opportunities

## MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

**HOW MINING PROFITS ARE MADE.**—The Saturday Evening Post recently published a series of the most interesting and sensible articles on the mining industry that have ever appeared. One in particular clearly shows the difference between buying promoters' mining stocks and investing in legitimate operations where the actual profits are made. We will send this article free upon receipt of 2c. stamp. The Lyon Investment Co., Joplin, Mo.

**IF YOU WISH TO BUY, SELL OR EXCHANGE** Wild lands, farm, timber or mineral lands, stumpage, coal mines, sawmills in operation, property in city or country, manufacturing plant or valuable property of any kind, anywhere, write us describing what you have, giving prices and terms, and stating what you desire. Our catalogue is sent free. Special rates for cruising. B. H. Cozine & Co., 2749 Graham, Louisville, Ky.

**50 ACRES TIMBER** and undeveloped gold vein, 45 miles S. W. of Washington City; gold tested \$16.00 to \$161.72 per ton; other business prevents my developing mine; \$2000 cash will get this bargain. Geo. W. Hagan, Maplehurst Jersey Farm, Lee's Summit, Mo.

**FOR SALE**—700 acres on railroad adjoining town of 500; textile mill site and town development or subdivision property; electric power; extensive pike frontage. Address Doak Aydelott, Tullahoma, Tenn.

**FOR SALE?** Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

**FELDSPAR** If you have or want them, and write **KAOLIN.** S. F. Sherman, 52 Broadway, N. Y. C.

**SAND AND CLAY** IF INTERESTED in bank sand and pottery clays near here, write like A. Chase, Memphis, Tenn.

**ZINC LANDS.**—Undeveloped zinc lands adjoining producing mines at \$10 to \$25 per acre are unequalled investments and certain to double in price during the year without development. Many have increased 300 per cent with but little expense of developing. Producing mines for sale also. W. F. Reeves, Marshall, Ark.

**FOR SALE (ARKANSAS).**—A bargain: 300 acres tested zinc-ore land found to contain good mineral value, located in Marion county, three miles from railroad station, in the rapidly developing rich mining Kingdom Springs district. Alex. C. Thompson, Trustee, Westerly, R. I.

**FLUOR SPAR** 10-FT. VEIN FLUORSPAR FOR SALE or lease. Samples sent on request. Newport Produce Co., Newport, Tenn.

**IRON ORE AND GRAPHITE** **FOR SALE.** 1240 acres, Ala., 1900 which is high-grade brown iron ore; 240 acres graphite, 99 per cent. pure; demand almost unlimited; would require but little expense to operate the graphite. The iron-ore tract has 1,000,000 tons in sight on the surface. Sells at the furnace \$2.50 per ton. Excellent opportunity for legitimate business enterprise. For further particulars address Ed E. Walker & Co., 519 Madison Ave., Covington, Ky.

**GRAPHITE** **GRAPHITE FOR SALE.**—300 million tons 4% graphitic ore, 900 acres, 3 miles R. R.; ample water and ideal plant sites; can subdivide. Price \$50,000. Roland G. Spearman, Talladega, Ala.

**COAL LANDS** **COAL LANDS** for lease and sale; \$25 to \$500 per acre. Railroad through different properties. Operating and investment opportunities. Address No. 3027, care Manufacturers Record, Balto., Md.

**COAL LANDS FOR SALE.**—Fine coal land, Tennessee; 2 veins; railroad through property; adjoins operating mines each side; good title; favorable deal. Non-resident owners. Address No. 3094, care Manufacturers Record, Balto., Md.

**50,000 ACRES** of valuable coal land; about one-tenth of the acreage leased to four operating companies, the net income from which is about \$30,000 per year. With proper management this property will yield a very large income. Offered at an attractive price by P. A. Green & Company, 713 Mutual Building, Richmond, Va.

**COAL LANDS AND MINES** **POCAHONTAS COAL LANDS** for sale and lease. Mines for sale. Charles V. Price, Welch, W. Va.

## RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

### COAL LANDS AND MINES

**Mine Ready for Operation** With 24,000 Acres. Good **COAL LAND FOR SALE.** Cheap to Close an Estate. Power plant, mining machines, cars, etc., fourteen miles of standard and narrow-gauge railroad, connecting with the Southern Railway at Lim Rock, Ala., sixty-five miles westerly from Chattanooga; four locomotives, cars, eighty dwellings and large commissary. Much valuable hardwood timber, with two good sawmills; most of the land on Cumberland Plateau suitable for agriculture when cleared; coal known as Belmont Block, very hard, high in volatile matter, excellent for domestic use. Low freight rates and best of markets. For full particulars, price and terms address F. D. Pierce, Bridgeport, Ala.

### COAL AND TIMBER LANDS

**FOR SALE OR LEASE**—4500 acres valuable coal land. High-grade steam and coking coal; one excellent vein domestic coal, best in the South; low in ash, high in carbon. Four veins of coal, 4 to 6 ft. thick—drift mining. Demand in excess of supply. Eight million feet original-growth merchantable timber. Plenty of other timber for mine props. On N. & W. R. R. Pocahontas freight rate. Title perfect. Write for particulars. W. E. Harris, 420 Mutual Bldg., Richmond, Va.

**I HAVE** 15,000 acres of coal and timber land for sale, the title perfect, all in a body; coal shows 4 ft. Price reasonable. Railroad now being built very close to this land. Address E. C. Shelton, Altamont, Tenn.

**FOR SALE**—In fee, large acreage fine virgin oak and hardwoods; good coal land; convenient to railroad. Details on request. O. B. Rector, Crossville, Tenn.

### SAWMILL AND TIMBER

**FOR SALE**—Large short-leaf yellow-pine plant, complete; one of the few left with 15 to 18 years' operation in sight. Want to deal with legitimate buyers only. No commission. Address No. 3008, care Manufacturers Record.

### TIMBER

**TIMBER FOR SALE.**—Seven million feet of extra fine timber, mostly pine; about 40 miles from Richmond, near both Southern and Norfolk & Western. Price reasonable; terms easy. Edward Eggleston, Owner, Amelia, Va.

**FOR SALE**—About three hundred and seventy-five million feet of the highest grade and quality of virgin long-leaf yellow pine. For particulars address H. H. Wefel, Jr., Mobile, Alabama.

### TIMBER LAND

**VALUABLE TIMBER TRACT FOR SALE** on large navigable river, near Wilmington, N. C.; 7500 acres in fee, in one tract, fronting four miles on river. Will cut FIFTY MILLION FEET, mostly pine, balance cypress, poplar and gum. Most of timber on four thousand acres with average haul of one mile to the river. Price attractive. Address Charles N. Riker, Union Trust Building, Washington, D. C.

**UNLIMITED** quantities of the best timber to be found anywhere at the prices under all other timber dealers. Let me show you. F. A. Baird, Redding, Cal.

### FARM AND TIMBER LANDS

**SOUTHERN LANDS.** We are prepared to furnish desirable farm lands, undeveloped and developed, and stocked, also hardwood and pine timber and cut-over lands, in any size tract wanted, in Ala., Miss. and La. These lands are exceptionally cheap and offer an attractive opportunity for investment. We also have some large farms to trade for city property. We are anxious to get in touch with people interested in these classes of properties and solicit correspondence. Bailey-Jones Real Estate & Ins. Co., Birmingham, Ala.

**4000 ACRES**, half timber and half cut-over land, for sale, preferably as a whole or in tracts of not less than 1000 acres each; property joins the town of Surrency, Appling county, Ga., on Southern Railway main line; fine stand of both pine and cypress timber; ideal location for stock farm or combination mill and colony farming. Land in vicinity noted for its record production of staple crops. For sale by owner, attractive price and terms, especially if bought as a whole. Wm. Hurd Hillyer, Atlanta, Ga.

### FARM AND TIMBER LANDS

**WE OWN LARGE TRACTS OF TIMBER LANDS**, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

### STOCK FARMS

**FOR SALE.**—Ten thousand acres especially well adapted for a ranch, located South Alabama. If buyer stocks ranch, would require no payment for three or four years. Address H. H. Wefel, Jr., Owner, Mobile, Ala.

### CATTLE RANCH

**CATTLE RANCH FOR SALE.** 67,000 acres improved ranch, stocked with high-grade Hereford cattle, at a bargain. 31,000 acres at \$3.40 per acre. 7,500 acres at \$4.00 per acre. 30,000 acres leased for a term of years. Cattle will be sold at low figure to purchaser of ranch. \$35,000 cash will handle ranch. Address Box 40, Marfa, Tex.

## FRUIT, FARM AND TRUCK LANDS

**THESE COLUMNS ARE CLOSELY READ BY PEOPLE** for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

### CUBA

**SOME FINE GROVES** and small plantations, 3 with houses ready for occupancy; all kinds of property from 2½ acres for \$25 up to millions. Hartley-Hellyer, Balto., Md.

### FLORIDA

**FREE, "THE WINTER GARDEN OF AMERICA,"** to Fruit Growers, Truckers, General Farmers, Cattle, Hog and Poultry Raisers. Folks interested in the great Indian River Section of Florida, write Indian River Farms Company, Suite O, 609 Putnam Bldg., Davenport, Iowa.

**REAL ESTATE BARGAINS.** For high-grade orange groves, winter homes, city property, timber tracts, Florida cattle ranches and other properties of all kinds consult The Waring Realty Co., Orlando, Fla.

**FOR A SAFE** and permanent investment Florida lands and values should interest you. Manatee County is the best location, and is destined to become one of the most progressive settlements in the State and a very profitable investment. Florida farms in Manatee County are below frost belt; have rich soil, with 355 producing days. Easy terms. J. Henry Strohmeier, Maryland Casualty Tower Building, Baltimore, Md., and Sarasota, Florida.

**FOR SALE**—13 acres finest trucking land in Florida, located in one of the most progressive towns in the leading section for truck crops, on main line S. A. L. Ry. and A. C. L. Ry. Crops purchased for cash at station platform. Land is ready for the plow and located within 8 blocks of post-office and new \$60,000 high school. Splendid hard-surfaced roads. Price very moderate, and terms if desired. We are owners and not real estate dealers. Address Kilgore Seed Co., Plant City, Fla.

### FOR SALE.

### 6500 ACRES IN FLORIDA.

### WHOLESALE PRICE. WILL NOT RETAIL.

Located on the East Coast, in Volusia County; price \$10 per acre; \$1 per acre down, balance \$1 per acre per year, 5 per cent. interest on deferred payments; 8 miles west of New Smyrna, Fla.; on the Orange City branch of the Florida East Coast R. R.; Indian Springs Station is only ¼ of a mile from it; 2250 acres are "prairie land." Has an elevation of about 22½ to 41 feet above the tide-water; top soil is a black sandy loam, underlaid with clay. Would make an ideal stock range. There are forty families farming in the adjoining sections; some have raised 45 to 50 bushels of corn to the acre, 50 barrels of Irish potatoes, and all kinds of garden truck, such as lettuce, beans, peas, Bermuda onions, besides good crops of rice, oats and grasses for feed. Title good. Owned in fee-simple, without incumbrance. Other information will be furnished upon request by E. C. Howe, 747 Hartford Bldg., Chicago, Ill.

### FLORIDA

**FOR SALE**—About 60 acres of valuable bearing grove of early and late Parson Brown and pineapple oranges and grapefruit; all in first-class condition. One of the best large groves in the State, and has a complete new, modern efficient packing-house directly on the Seaboard Air Line Railway at Weirsdale, Marion County, Florida. Call by appointment on Dr. E. B. Lytle, Stanton, Florida, or write Alex. C. Thompson, Westerly, R. I.

**FLORIDA.**—Do you intend visiting the land of health and sunshine this winter? If so, write M. J. Hoeng, Prop. Hotel Palma, West Palm Beach, Fla., for instructive booklet.

**FOR SALE**—Ten acres of orange and grapefruit trees in full bearing on the Caloachatchee River at Caloosa. Price \$5000. Write C. A. Currier, Lexington, Mass., or E. H. Stevens, Caloosa, Fla.

**HOMESEEKERS**, join me in developing large tract of land, Manatee county. Extremely small investment. Big profits sure. Opportunity supreme. C. A. Hlands, 471 Lake Park Ave., Chicago.

### GEORGIA

**2700 ACRES** of fine dairy or cattle land 1 miles from Savannah can be bought at \$20 per acre. A bargain. Skeffington & White, Savannah, Ga.

### KENTUCKY

**BLUE GRASS FARMS**, Central Kentucky. All sizes and varieties. For homeseeker and investor. Advance seems absolutely certain. Buy now. Eugene Rucker, Georgetown, Ky.

### MARYLAND

**FOR SALE**—A fine farm, splendidly situated; 82 acres; good buildings; 23 miles from Baltimore; macadam road. Write for full particulars. C. J. Moore, Fallston, Md.

**A MARYLAND HOME**—Come to a milder climate. 38 acres; 15-room house; old style; modernly equipped; shaded lawn; Baltimore; 21 miles; near railroad and State road. Write for particulars. Caleb J. Moore, Fallston, Md.

### TEXAS

**TEXAS.**—You have heard about it—the Lone Star State in the Sunny South. If you have some spare money you can safely invest it here, as money can't be used to any better advantage than in South Texas land. I have 25 years' experience and know that now is the time to grab opportunities. If you want a ranch, stock farm, farm or unimproved land, write me what you want, and I will submit to your consideration such that you will profit big to buy. B. P. Hintze, 214 East 6th St., Austin, Texas.

**C. H. MARTIN**, the Texas land man, Jacksonville, Texas, sells and exchanges property from vacant lots to large ranches.

### VIRGINIA

**BUY A FARM IN VIRGINIA.**—I offer several large farms suitable for dairy and stock farms. Demand in Richmond for milk greater than the supply. Long grazing season and rich corn lands make Virginia river plantations ideal stock and dairy farms. Investigate the conditions here before buying elsewhere. Information cheerfully given. Correspondence invited. Prompt replies.

710-acre James River farm, 15 miles from Richmond, 1 mile from railroad station. 500 acres in cultivation and grass; 300 is of the very best James River low grounds; 10-room house; barns and outbuildings. Write for description and price.

240-acre farm in Mecklenburg County; 150 acres in cultivation; very rich, productive land; near railroad station. Twelve-room dwelling and outbuildings. Can furnish large or small farms in any section of Virginia. Tell me of the kind of farm you want. W. E. Harris, 420 Mutual Bldg., Richmond, Va.

**STAUNTON RIVER FARM**—520 acres, including river bottoms and upland; about 300 acres under cultivation; corn, wheat, hay, shipping tobacco. Land in improved condition. Place well watered, partly fenced. Some timber—pine, oak, poplar. Ample firewood and good land uncleared. Three tenant-houses, new stable, tobacco barns, corn crib, granary. Team and tools already on place at reasonable figure. Inquiry and inspection invited. Price \$25 per acre. For terms and further information apply to G. C. Stone, Hurt, Pittsylvania Co., Va.

**A 1130-ACRE FARM INVESTMENT.** Located in the Piedmont section of Virginia; 440 acres river bottom; 550 acres of oak, hickory and pine. The upland is good and lies well. Eastern markets promptly reached. Local markets excellent. This farm and its price should appeal to you if you ever expect to invest in farm lands. Let us send you full description. Robeson-Hall Land Co., Morristown, Tenn.

**DAIRY, CROP AND TRUCK FARMS. SUBURBAN AND COUNTRY RESIDENCES.** Good roads, mild climate, good labor conditions, desirable neighbors. Write us about the kind of place, large or small, you might sometime like to live on. Slaymaker-Schneider Corp., No. 612 King St., Alexandria, Va.

**SPLENDID 400-ACRE Virginia farm;** beautiful 10-room dwelling in large, shady lawn. Convenient to town, on public road. Will exchange for Chicago property. Pollard & Bagby, Inc., Richmond, Va.



# Classified Opportunities

## FRUIT, FARM AND TRUCK LANDS

**VIRGINIA**  
**SHEPANDOAH VALLEY**  
 OF VIRGINIA,  
 Where Blue Grass  
 and Alfalfa Grow.  
 In the heart  
 of the Apple Belt.  
 Delightful climate.  
 Fertile Soil.  
 Write John M. Londeree,  
 Staunton, Va.

**2700-ACRE FARM** on James River, Va.:  
 deep-water facilities; 1700 acres fine timber;  
 1000 acres high state of cultivation; well  
 equipped; new barns, etc.; splendid rich  
 man's estate. Apply for price, Green &  
 Redd, Richmond, Va.

## ATTORNEYS

**RAYMOND M. HUDSON,**  
 Attorney, Washington, D. C.  
 Practice before U. S. Supreme Court, U. S.  
 Court of Claims, D. C. Court of Appeals,  
 D. C. Supreme Court, Va. and Md. Courts,  
 Executive Departments, Congressional Com-  
 mittees, Federal Reserve Board, Federal  
 Trade Commission, Interstate Commerce  
 Commission. Cable "Rayhud."

## MECHANICAL ENGINEER

**INVENTORS.**—Write me today for in-  
 structive literature explaining in detail  
 what I can do for you. R. G. Clynne, Colum-  
 bia Bldg., St. Louis, Mo.

## CAPITAL WANTED

**WANTED**—\$15,000 to quarry pink Tennessee  
 marble. Quarry equipped ready to operate,  
 but needs working capital and slightly in-  
 creased facilities. Exceptional opportunity.  
 Investigation invited. Address M. C., Box 96,  
 Knoxville, Tenn.

## COLLECTIONS AND ADJUSTMENTS

**COLLECTIONS AND ADJUSTMENTS**  
**MADE ANYWHERE IN THE SOUTH.**  
 Careful attention given to all claims entrusted  
 to us on a straight commission basis.  
 No membership fees, retainers or other  
 charges.

**SOUTHERN MERCANTILE ADJUSTMENT**  
**COMPANY.**  
**UNION NATIONAL BANK BUILDING,**  
 Columbia,  
 South Carolina.

## FINANCIAL

**A SAFE INVESTMENT.**  
 Steady and large dividends.  
 We offer 7% preferred and guaranteed  
 stock, which also shares in all profits of the  
 company. This means 10% to 20% now, and  
 much more later. We grow the Albemarle  
 Pippin, the finest apple in the world, made  
 famous by Queen Victoria. It requires a  
 combination of soil and elevation, which is  
 very limited. It cannot, therefore, be over-  
 done. We have developed the selling end of  
 the business and ship boxed Albemarle Pip-  
 pins to satisfied customers in thirty-four  
 States and abroad. We need capital. It will  
 pay you to write us for particulars. Pippin  
 Co., Charlottesville, Va.

**A REFUNDING BOND ISSUE** of \$100,000  
 for sale on going manufacturing plant. Ad-  
 dress No. 3034, care Manufacturers Record,  
 Balto., Md.

## INCORPORATING COMPANIES

**CORPORATIONS ORGANIZED** under the  
 broad, liberal and substantial laws of Dela-  
 ware. Minimum original and annual ex-  
 pense. Estimates cheerfully furnished. Write  
 for our revised DIGEST of the law.  
**CORPORATION COMPANY OF DELAWARE**  
 Equitable Building, Wilmington, Del.

## BUSINESS OPPORTUNITIES

**FOR SALE**—The Lakeside Hotel and  
 grounds, with or without a full-bearing  
 orange grove, located on south shore  
 Lake Weir, Marion county, Florida, on At-  
 lantic Coast Line Railway. A most healthy,  
 attractive location. Hotel situated 90 feet  
 above lake, which is 7 by 5 miles, abounding  
 in fish and game, and surrounded by a white  
 sandy beach. Call on F. C. Perrin, Lakeside  
 Hotel, Weirsdale, Fla., or write Alex. C.  
 Thompson, Treas., Westley, R. I.

**WANTED**—Partner with from six to eight  
 thousand to invest with like amount in a  
 lucrative manufacturing business. For par-  
 ticulars address Box 804, Anniston, Ala.

## BUSINESS OPPORTUNITIES

**PARTIES** having valuable undeveloped  
 properties or chemical factories or processes  
 needing development or infusion of push,  
 write to address below. Advertiser is thor-  
 oughly trained chemist with 12 years experi-  
 ence in executive and managerial capacities  
 in connection with industrial chemistry, and  
 is seeking new connections along similar  
 lines. Might invest. Address No. 3026, care  
 Manufacturers Record, Balto., Md.

**WILL PURCHASE** desirable electric-light  
 or gas property having established earnings,  
 or finance consolidation of a group of such  
 properties. Advise concerning present an-  
 nual gross earnings and franchise conditions.  
 Treasurer, P. O. Box 1136, Providence, R. I.

**THE OWNERS** of the old Wilkinson gold-  
 mining tract on Silver Creek, Burke County,  
 N. C., wish to confer with parties able to  
 dredge the bottom lands for gold. Drawer  
 189, Lincolnton, N. C.

**HAVE YOU CASH** to put in safe invest-  
 ment in South netting 10 per cent. and bet-  
 ter? Address No. 3009, Manufacturers Rec-  
 ord, Balto., Md.

**FOR RENT**—On reasonable terms, for a  
 long period, a 2-story shop situated in a town  
 of 50,000 inhabitants in Southeastern Penn-  
 sylvania. This shop has good railroad facili-  
 ties, and consists of one 2-story building, 200  
 ft. long, 43 ft. wide; one 1-story building, 238  
 ft. long, 56 ft. wide; one 1-story building, 330  
 ft. long, 67 ft. wide. The right party can  
 secure a very cheap rental on the above prop-  
 erty. Address No. 3020, care Manufacturers  
 Record, Balto., Md.

**SOME ENTERPRISING TOWN** by prompt  
 action can secure an unusually desirable  
 manufacturing establishment. Unlimited  
 market. Used everywhere. Liberal profits.  
 Inexpensive equipment. Almost any wood-  
 working plant can manufacture the article,  
 which is a new invention and patented win-  
 dow screen. Waste wood can be largely  
 used. Address Owners, Lindbeck & Murray,  
 172 N. Water St., Rochester, N. Y.

**A HIGHLY SUCCESSFUL** manufacturer  
 of machinery proposes to build and equip a  
 new, modern machine shop and foundry com-  
 bined, and invites correspondence with man-  
 ufacturers who would consider selling or  
 consolidating in order to reduce their over-  
 head charges and selling expenses. This is  
 a fine opportunity for a small manufacturer  
 of an established line to sell or consolidate  
 with a large and well-rated manufacturer.  
 Address No. 3015, care Manufacturers Record.

## BUILDINGS—STEEL PORTABLE

**"PRUDENTIAL" STEEL BUILDINGS** for  
 all purposes; portable, one-story construction;  
 workshops, toolhouses, storage, gar-  
 ages, bunkhouses, etc. Write for Catalog A.  
 C. D. Pruden Company,  
 Baltimore, Md.

## COLLEGES AND SCHOOLS

**EXECUTIVES ARE IN DEMAND** IN  
**MODERN BUSINESS.**—Many of the largest  
 business organizations in the U. S. have  
 adopted Pace Standardized Courses to meet  
 their growing need for competent executives.  
 To the ambitious man who is looking for ad-  
 vancement in modern business the opportu-  
 nity presented by this nation-wide educa-  
 tional movement is unparalleled. You can take  
 advantage of the same courses by direct en-  
 rollment. Instruction by mail—no interference  
 with present employment. Free Bulletin  
 (32 pp.) gives complete information. Ask for  
 Bulletin M-5. Pace & Pace, Hudson Termi-  
 nal, 30 Church St., New York.

## PATENT ATTORNEYS

**EUGENE C. BROWN, ENGINEER AND**  
**PATENT LAWYER,** 734 Eighth St. N. W.,  
 Washington, D. C. Graduate Engineer Le-  
 hig University; Member Bar U. S. Supreme  
 Court; Former Examiner U. S. Patent Office.  
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 the U. S. Patent Office.  
**NORMAN T. WHITTAKER,**  
 Attorney-at-Law, Mechanical Engineer,  
 31 Legal Bldg., Washington, D. C.  
 (Opposite Patent Office.)  
 Inquiries Invited.

## INDUSTRIES WANTED

### MISCELLANEOUS

**SISTERSVILLE, W. VA.,** on the B. & O.  
 R. R. and Ohio River, situated in the steel  
 district of the United States, offers to all  
 manufacturers: Electric power at 1/4c. per  
 K. W. H., free factory sites up to thirty  
 acres, \$c. natural gas, \$1.25 coal, and other  
 equally cheap natural resources. It is the  
 richest city in the United States per capita  
 and one of the best governed. But this is  
 not all. It possesses men whose co-operation  
 is offered financially and otherwise—the type  
 you will want to associate with as a busi-  
 ness executive. Write Secretary Chamber of  
 Commerce.

**CARLISLE, PENNSYLVANIA,** wants men;  
 men of enterprise; men of vision who can  
 establish rated industries. Co-operation will  
 be given to the fullest extent. One of the  
 lowest electric-power rates in the country.  
 Baltimore freight classification. Educational  
 advantages beyond the average city of 10,000  
 inhabitants. Address Carlisle Chamber of  
 Commerce.

## LOCATION WANTED

**ANY TOWN** desirous of securing an indus-  
 try that can be started with very small out-  
 lay of money and built up to large propor-  
 tions in a comparatively short time, please  
 communicate with the undersigned and par-  
 ticulars will be furnished. The article is a  
 new invention and patented window screen,  
 and is without question superior to anything  
 of the nature on the market. Unlimited  
 market. Good profits. Simple and easy to  
 make. Almost any woodworking plant can  
 be utilized. Address Owners, Murray &  
 Lindbeck, 172 N. Water St., Rochester, N. Y.

## FACTORY SITES

**FOR SALE**—Fine water-front property on  
 Norfolk and Portsmouth rivers. Deep water,  
 35 feet. Full information. C. H. Gates, New-  
 port News, Virginia.

**FOR SALE OR LEASE**—90 acres in the  
 center of the harbor of Norfolk and Port-  
 smouth; 1220 feet water front. For particu-  
 lars address J. L. Marye, Newport News, Va.

**LARGE OR SMALL MANUFACTURING**  
**SITES** in Richmond, Va. Water and rail  
 transportation give low freight rates to all  
 parts of the country. Good labor conditions;  
 near raw materials; mild climate. 250 acres  
 fronting James River for 3900 ft. above high  
 water; channel 23 ft. deep. Two miles of  
 railroad will connect property with 6 trunk-  
 line railroads. Will sell all or part of tract to  
 manufacturer. For full particulars address  
 W. E. Harris, 420 Mutual Bldg., Richmond, Va.

**BALTIMORE FACTORY AND TERMINAL**  
**SITES.**—Statement of Asa G. Candler, Presi-  
 dent The Coca-Cola Co.: "Investigation con-  
 vinced us that Baltimore is not only the  
 commercial metropolis for Southern trade,  
 but that it affords shipping opportunities  
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 cities in any section of the United States."  
 Locate in Baltimore and derive these advan-  
 tages. We can provide accommodations to  
 meet your requirements.

**"OUR MOTTO":**  
**FACTORY AND TERMINAL SITES**  
**IN BALTIMORE.**  
 Wm. Martien & Co.,  
 Ninth Floor, Lexington St. Bldg., Balto., Md.

## INDUSTRIAL PLANTS FOR SALE

**LAUNDRY AND DRY CLEANING PLANT**  
**LAUNDRY AND DRY-CLEANING PLANT,**  
 complete, up to date, electrical driven, in  
 city 25,000, south of Ohio River; doing \$500  
 a week, showing more than 25 per cent. net  
 profit; selling on account of health. Ad-  
 dress No. 3026, care Manufacturers Record.

## INDUSTRIAL PLANTS FOR SALE

### FURNITURE FACTORY

**WANT TO SELL OR LEASE** a well-  
 equipped furniture manufacturing plant.  
 Machinery is in good condition and running  
 every day. A man or firm that understands  
 the business can secure a big bargain on  
 easy terms or on long lease. If interested,  
 address P. O. Box No. 606, Oxford, N. C.

### COLD-STORAGE AND ICE PLANT

**COLD-STORAGE AND ICE PLANT FOR**  
**SALE** in one of the best cities of the South.  
 Opportunities unlimited. Address No. 3033,  
 care Manufacturers Record, Balto., Md.

### ENAMELED-WARE PLANT

**FOR SALE**—Sanitary enameled-ware plant,  
 equipped to manufacture enameled iron bath-  
 tubs, lavatories and kitchen sinks. Foundry  
 equipment of the latest machine-molding  
 type. Automatic enameling tables and dou-  
 ble enameling furnaces in enameling depart-  
 ment insure large production at minimum  
 cost. Present capacity, about 20 tons per  
 day of finished product. Ample grounds for  
 extensions. Plant could be readily convert-  
 ed for other purposes. Location within 100  
 miles of Pittsburgh. Fuel, natural gas, while  
 coal is mined in the immediate vicinity.  
 Shipping and other facilities unsurpassed.  
 If interested, address No. 3036, care Manu-  
 facturers Record, Balto., Md.

## MEN WANTED

**IF ACTUALLY QUALIFIED** for executive,  
 manufacturing, technical or administrative  
 position carrying salary between \$2500 and  
 \$15,000, communicate with undersigned coun-  
 sel, who will negotiate strictly confidential  
 preliminaries for such positions. Not an em-  
 ployment agency; undersigned acts in direct  
 confidential capacity. Send name and ad-  
 dress only for preliminary details. R. W.  
 Bixby, E. 1 Niagara Square, Buffalo, N. Y.

**SALES AGENTS WANTED.**—Old estab-  
 lished manufacturer of electrical machinery  
 wants additional sales agents for its line of  
 motors, generators, converters for moving-  
 picture machines, electric arc welders, bat-  
 tery charging outfits, etc. Has one of the  
 best propositions now available and pays  
 good commissions. Address No. 3032, care  
 Manufacturers Record, Balto., Md.

**WANTED**—Technically trained man who  
 has had about one year in manufacturing,  
 selling or operating of oil mill, fertilizer or  
 textile machinery, to learn and do valuation  
 work in South. Permanent position. Give  
 particulars as to age and experience. Ad-  
 dress No. 3035, care Manufacturers Record.

**WANTED**—A first-class sawmill foreman  
 and operator for a sawmill cutting Tupelo  
 gum, thoroughly familiar with operating  
 band mill, twin band resaw, veneer saws,  
 edger and trimmer. Must be thoroughly ex-  
 perimented. References. Address P. O. Box  
 1008, Mobile, Ala.

**WANTED**—A first-class elevator salesman.  
 Give full particulars in first letter. Moffatt  
 Machinery Mfg. Co., Charlotte, N. C.

## SITUATIONS WANTED

**MARRIED MAN,** age 35, with 15 years' ex-  
 perience working up from the bottom to po-  
 sition as general manager in veneer and  
 box-shed mills; have operated mills em-  
 ploying as many as 200 operators; have ex-  
 perience in ordinary shoos, also wire-bound  
 boxes; have had full charge of the sales end  
 with good mills; can give reference from  
 past employers. I am now employed, but on  
 account of a change with the firm I am with,  
 I am open for a change at once. Address No.  
 3037, care Manufacturers Record, Balto., Md.

**POSITION** wanted on road in South-  
 western States; experienced in mill sup-  
 plies, roofing and electrical line; 36 years  
 of age; now employed, but desire a change.  
 My references will prove to be the very best.  
 Address P. O. Drawer 30, Laurel, Miss.

**OPEN FOR ENGAGEMENT.**—American.  
 Long experience in responsible engineering,  
 administrative and executive charge; impor-  
 tant railroad and other works. Efficient or-  
 ganizer, securing results. Accustomed to  
 handling delicate and confidential negotia-  
 tions; private, financial investigations and  
 reports. Clean record, reliable, dependable,  
 temperate. Meet principals by appointment.  
 Address No. 3030, care Manufacturers Record.

## MACHINERY AND SUPPLIES

### PUMPING PLANT

**FOR SALE**—SECOND-HAND PUMPING  
**PLANT.**—24" Worthington single-suction cen-  
 trifugal pump. 155 H. P. Babcock & Wilcox  
 water-tube boiler. 340 H. P. Buckeye engine,  
 vertical, cross-compound. Pumping capac-  
 ity, 15,000 gal. per min. 36-ft. lift. Con-  
 denser, water heater, boiler feed pump and  
 other attachments, complete. In perfect  
 shape, ready to run. For particulars address  
 P. O. Box No. 3, Pierce, Texas.



# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close February 23, 1917.

**PROPOSALS FOR SHOP MACHINES,** Steel Cable, Bearing Metal, Brass Tubing, Tin Pipe, Staples, Tacks, Hinges, Night Latches, Hooks and Eyes, Calcimine Brushes, Duster Brushes, Scrub Brushes, Paint Brushes, Grindstones, Garbage Cans, Oilers, Blow Torches, Ladders, Tool Handles, Lanterns, Window Glass, Rules, Steel Tapes, Hoses, Packing, Gaskets, Rubber Matting, Canvas, Tarpaulins, Railway Bunting and Flags, Burlap, Mattress Ticking and Binding, Sheet, Marline, Sash Cord, Twine, Leather Belting, Emery Cloth, Sandpaper, Chamois Skins, Rubber Boots, Pipe Covering, Boiler Lagging, Carbide, Alumina Polishing, Potassium Chlorate, Lye, Soap, Polish, Candles, Cork, Matches, Toilet Paper, and Lumber. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. February 23, 1917, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (No. 1120) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La.; and Fort Mason, San Francisco, Cal.; also from the U. S. Engineer Offices in the principal cities throughout the United States. EARL I. BROWN, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**OFFICE OF SUPERINTENDENT U. S. CAPITOL BUILDING AND GROUNDS,** WASHINGTON, D. C., January 24, 1917. Proposals, in duplicate, will be received at this office for various items in connection with the reconstruction of the courthouse, Washington, D. C., the most important of which will be the resurfacing of the building in limestone, including a granite base course and the reconstruction of the roof. Other items will follow. In each case notices will be issued naming the date and hour for the receipt of bids, or the amount of any deposit check for plans and specifications which may be required. Intending bidders are requested to file application for plans and specifications for the items in which they are interested. Such applications will be filed and issue made in accordance with the progress of the work. Plans and specifications for the stone work are now ready for issue. The right is reserved to reject any or all bids and to waive any technicality in any bid. ELLIOTT WOODS, Superintendent U. S. Capitol Building and Grounds.

Bids close March 8, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** January 25, 1917. Sealed proposals will be opened in this office at 3 P. M. March 8, 1917, for the construction of the United States postoffice at Pulaski, Va. Drawings and specifications may be obtained from the custodian of the site at Pulaski, Va., or at this office, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close March 12, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** January 25, 1917. Sealed proposals will be opened in this office at 3 P. M. March 12, 1917, for the construction of the United States postoffice at Martin, Tenn. Drawings and specifications may be obtained from the custodian of the site at Martin, Tenn., or at this office, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close March 16, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** February 2, 1917. Sealed proposals will be opened in this office at 3 P. M. March 16, 1917, for the installation, complete, of a hydraulic mail lift pump, etc., in the United States postoffice and courthouse at Philadelphia, Pa., in accordance with the drawing and specification, copies of which may be had at this office in the discretion of the Supervising Architect, JAMES A. WETMORE, Acting Supervising Architect.

Bids close March 7, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** January 27, 1917. Sealed proposals will be opened in this office at 3 P. M. March 7, 1917, for the construction of the United States postoffice at Bay City, Tex. Drawings and specifications may be obtained from the custodian of the site at Bay City, Tex., or at this office, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close March 9, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** January 24, 1917. Sealed proposals will be opened in this office at 3 P. M. March 9, 1917, for the construction of the United States postoffice at Hammond, La. Drawings and specifications may be obtained from the custodian of the site at Hammond, La., or at this office, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

## PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

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FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

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### THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

Bids close March 15, 1917.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C.,** February 1, 1917. Sealed proposals will be opened in this office at 3 P. M. March 15, 1917, for the construction of the United States postoffice at Marion, Ky. Drawings and specifications may be obtained from the custodian of the site at Marion, Ky., or at this office, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close March 8, 1917.

**U. S. ENGINEER OFFICE, BALTIMORE, Md.,** Sealed proposals for dredging in Elk River, Md., will be received here until 1 P. M. March 8, 1917, and then opened. Information on application.

Bids close February 16, 1917.

## \$150,000 Street Improvement Bonds

Pursuant to an Act of the General Assembly of North Carolina, enacted at its present session, the Board of Aldermen of the City of Gastonia will receive sealed bids Friday at 8 o'clock P. M. February 16, 1917, for an issue of one hundred and fifty thousand (\$150,000) dollars street-improvement bonds. Such issue is to bear not more than 5 per cent. interest and to be sold for not less than their face value. Certified check for not less than two thousand dollars (\$2000) must accompany all bids. The Board of Aldermen reserve the right to reject any and all bids.

For information as to financial condition of the city or other information apply to the undersigned.

T. A. RATCHFORD,  
Clerk to the Board of Aldermen.  
Gastonia, N. C., January 25, 1917.

Bids close February 16, 1917.

## \$100,000 Bridge Bonds

Pursuant to an act of the General Assembly of North Carolina, enacted at its present session, the Board of County Commissioners of Gaston County will receive sealed bids Friday, February 16, 1917, at 12 o'clock noon, for an issue of one hundred thousand (\$100,000) dollars coupon bonds. The issue is to be serial bonds, and to bear not more than five (5) per cent. interest. The first installment to be four thousand (\$4000) dollars, payable at the fifth year, and annually thereafter the payment of four thousand thousand (\$4000) dollars, until the issue be liquidated. The interest to be paid semi-annually.

The issue is for the purpose of bridge building. Certified check for not less than 2 per cent. of the amount of the bid must accompany all bids. The right to accept or reject any or all bids is reserved by the Board. No bids will be considered less than par.

Any desired information regarding this issue will be furnished by the Clerk.

O. B. CARPENTER,  
Clerk to Board.  
Gastonia, N. C., January 13, 1917.

Bids close February 23, 1917.

## \$200,000 5½% Bonds

West Palm Beach, Fla. Sealed bids will be received by the Board of Commissioners of the Lake Worth Inlet District at Room No. 11 Postoffice Building, West Palm Beach, Florida, until 12 o'clock noon February 23, 1917, for \$200,000 5½ per cent. bonds of the Lake Worth Inlet District. Certified check 10 per cent. Full information upon application.

H. C. HOOD,  
Chairman.

Bids close February 13, 1917.

## \$16,000 5% Bonds

St. Joseph, La., Jan. 11, 1917. The undersigned Committee of the Police Jury of Tensas Parish, Louisiana, will receive sealed proposals at the Courthouse in St. Joseph, Louisiana, at the hour of 12 o'clock noon on Tuesday, February 13, 1917, for the purchase of \$16,000 refunding bonds of said parish, bearing 5 per cent. interest per annum, payable semi-annually, of the denomination of \$100 each, five payable annually for 29 years and 15 payable the 30th year; same to sell for not less than par. Bids will be received for any portion of the above issue, or the whole thereof. Said bids to be accompanied with certified check for 10 per cent. of the amount bid for.

The committee reserves the right to reject all bids.

F. H. CURRY,  
E. D. COLEMAN,  
E. F. NEWELL,  
Committee.

Bids close March 1, 1917.

## \$20,000 6% Bonds

The Town Council of the Town of Brooksville, Florida, will, up to 7:30 P. M. March 1, 1917, receive sealed bids for the sale of twenty \$1000 serial water-works bonds of said town, or any part thereof numbered from 1 to 20, bearing interest at 6 per cent. per annum, and one of said bonds falling due each and every year after the issuance.

Address all communications to W. M. Russell, Town Clerk, Brooksville, Florida.

Bids close February 15, 1917.

## \$8000 Road Bonds

Sealed bids will be received until 10 o'clock A. M. February 15, 1917, for \$8000 Jackson Township Road Bonds. For information address

G. A. MOORE,  
Secretary Board of Road Commissioners,  
Jackson, N. C.

Bids close February 21, 1917.

## Water and Light Improvement Bonds

Sealed bids will be received at Lumberton, N. C., until 12 o'clock noon Wednesday, February 21, 1917, for the purchase of \$51,000 Town of Lumberton 20-year serial bonds; to be in denominations to suit the purchaser. Bids desired on 5 per cent. and 5½ per cent. bonds separately, interest to be agreed upon at sale and payable semi-annually. Place of payment optional with purchaser. All bids must be accompanied with \$500 certified check, payable to the undersigned. The Board of Commissioners reserve the right to reject any and all bids.

IRA B. TOWNSEND,  
Clerk and Treasurer.

Bids close February 12, 1917.

## \$20,000 5% Bonds

Murray, Ky., January 24, 1917. Sealed proposals will be received by C. M. Smoot, City Clerk of the City of Murray, Ky., until noon on February 12, 1917, for the purchase of bonds to the amount of \$20,000, in denominations of \$500 each, bearing interest at the rate of 5 per cent. per annum. Interest payable semi-annually on the 1st days of April and October. Said bonds to be issued by the City of Murray, Ky., for the purpose of constructing a municipal electric-light and power system and improving the municipal water-works system. Said bonds to be dated April 1, 1917, and due in twenty years from date, with the option on the part of the said city of Murray to pay any or all of said bonds at any time after five years from date of said bonds. Each bid for said bonds shall be accompanied by a certified check on some solvent bank for \$500 as evidence of good faith of the bidder. The City Council hereby reserves the right to reject any or all bids for said bonds.

C. M. SMOOT,  
City Clerk.

Bids close March 5, 1917.

## \$10,000 4½% Bonds

Sealed bids will be received until noon March 5, 1917, by A. T. Shields, County Clerk, Lexington, Va., for \$10,000 4½ per cent. Rockbridge County Bonds, dated April 2, 1917. For detailed information send stamped envelope to the undersigned.

J. J. L. KINNEAR,  
Lexington, Va., R. F. D. No. 6;  
J. P. WELSH,  
Lexington, Va.,  
Supervisors,  
Committee on Bonds.

## Road Oiling

STATE OF MARYLAND.  
STATE ROADS COMMISSION.  
NOTICE TO CONTRACTORS.

Sealed proposals for oiling six sections of State Highway, requiring approximately 1254,499 gallons of oil, as follows:

Division.	Miles.	Gallons.
No. 1—Worcester, Wicomico, Somerset and Dorchester Counties	18.99	97,462
No. 2—Talbot, Caroline, Queen Anne's, Kent and Cecil Counties	65.88	174,118
No. 3—Baltimore, Harford and B. & W. Blvd., Howard County	110.17	252,065
No. 4—Anne Arundel, St. Mary's, Charles, Prince George's and Montgomery (Part) Counties	43.08	186,971
No. 5—Montgomery (Part), Frederick, Howard, Carroll and Washington (Part) Counties	127.91	262,561
No. 6—Washington (Part), Allegany and Garrett Counties	102.93	281,946
	488.96	1,254,499

Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 15th day of February, 1917, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of 50c., as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of two hundred (\$200) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 1st day of February, 1917.

FRANK H. ZOUCK,  
Chairman.

CLYDE H. WILSON,  
Secretary.

Bids close February 13, 1917.

## Highway and Bridges

STATE OF MARYLAND.  
STATE ROADS COMMISSION.  
NOTICE TO CONTRACTORS.

Sealed proposals for the following:

Contract No. 048—CECIL COUNTY: One section of road leading from Porter's Bridge to Rising Sun, about 3.40 miles in length. (Concrete or oil-bound macadam construction.)

Contract F-25—FREDERICK COUNTY: One section of road leading from Emmitsburg to Bridgeport, about 5.00 miles in length. (Concrete or oil-bound macadam construction.)

Bascule Spans.—

Two duplicate Bascule Spans—40 feet clear. Contract Wo-12, Section 2, WORCESTER COUNTY: One over Sinepuxent Bay at Ocean City, Maryland.

Contract 0266, Section 2, BETWEEN KENT AND CECIL COUNTIES: One over Sassafras River at Georgetown, Maryland.

Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 13th day of February, 1917, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of five hundred (\$500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 26th day of January, 1917.

FRANK H. ZOUCK,  
Chairman.

CLYDE H. WILSON,  
Secretary.



# PROPOSALS

SEWERS WATER WORKS ELECTRIC LIGHT PLANTS BRIDGES

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close February 20, 1917.

## Courthouse

Georgia, Lee County.

Bids will be received by T. S. Burton, Chairman of the Building Committee of Lee County, Ga., in the office of the County Clerk in Leesburg, Ga., until February 20, 1917, at 10 o'clock A. M., for the erection of a courthouse for the said county. To be two stories; to contain offices for all necessary county officials, courthouse and jury rooms, etc.; to be built of brick, hollow tile and concrete frame with limestone trimmings; slate roof and copper tower. Building will be heated by one pipe, low-pressure steam system, and is to cost not exceeding \$40,000. The construction of said building to begin within fifteen days after awarding the contract and to be completed within eight months from this date.

Payments for work and material to be made from time to time on estimates furnished from the contractor and approved by the architect, averaging 85 per cent. of the work done and material on the ground. Balance of 15 per cent. to be paid when the building is fully completed and accepted by the architect and building committee.

Each bidder to deposit with his bid a certified check for \$1000, payable to T. S. Burton, Chairman of the Building Committee, or his successor, as a guarantee that he will enter into a contract with the county upon the terms of his bid within fifteen days after its acceptance, and give bond with security in the sum of 200 per cent., and that upon his failure to enter such a contract and give bond said check to be retained by the Secretary, or his successor, as liquidated damages.

Plans and specifications may be procured by contractors wishing to make a bid on same on a deposit of \$25 with T. S. Burton, Chairman of the Building Committee, or with the Architect, J. J. Baldwin, Anderson, S. C. Plans will also be on file in the office of the Chairman and in the office of the Architect.

The Building Committee reserves the right to reject any and all bids.

This 12th day of December, 1916.

T. S. BURTON,  
Chairman for Building Committee.  
J. J. BALDWIN,  
Architect,  
Anderson, S. C.

Bids close March 5, 1917.

## Elks' Home

Sealed proposals will be received up to March 5, 1917, at 12 o'clock noon, for the new home of New Orleans Lodge No. 30, R. P. O. Elks.

Bidders will be required to make a deposit of two hundred dollars (\$200) for each set of plans and specifications, and a certified check on a New Orleans bank in the sum of twenty-five hundred dollars (\$2500) will be required of each bidder.

Plans and specifications can be had at the office of the Architects, Toledano, Wogan & Bernard, Title Guarantee Building, New Orleans, Louisiana.

## Miami, Florida Y. M. C. A.

The directors of the Miami Y. M. C. A., at a meeting January 2, 1917, moved and carried that Architect H. Hastings Mundy be instructed by this board to ask for bids on the plans submitted by him, and also for bids on an additional story which would give 84 sleeping rooms. Said bids to be alternate bids on a three-story and a four-story building with basement.

Working plans are now being prepared by the architect and are to be ready for distribution on January 26, 1917. On or after January 26, 1917, plans and specifications will be on file at the office of the general secretary of the Miami Y. M. C. A., Burdine Building. Full sets of plans and specifications, together with proposal forms, may be had on or after the above date from H. Hastings Mundy, architect, 236 12th street, upon payment of a deposit of fifty (\$50) dollars. To depositors returning sets of plans and specifications in good condition, thirty-five (\$35) dollars will be refunded.

The Board of Directors will receive bids upon the proposed building until 7.30 P. M. February 26, 1917. A bid bond in a sum equal to 25% of the amount of the contractor's highest bid in the list of alternates will be required to accompany the contractor's bids, to stand as a guarantee that the contractor, if successful, will enter into a contract in accordance with the proposal forms furnished with the specifications. Said bond is authorized by law to transact business of this character in the State of Florida. January 5, 1917.

Bids close February 26, 1917.

## Drainage Canal

NOTICE TO DRAINAGE CONTRACTORS.

The Board of Drainage Commissioners of Six and Twenty Drainage District hereby gives notice that it intends to let to the lowest responsible bidder a contract or contracts for digging a Drainage Canal along Six and Twenty Mile Creek and its tributaries, Town Creek and Little Six and Twenty, in Anderson County, South Carolina, including the clearing of the right of way and building rip-rap dams, the total length of canal 16 miles; 3 miles 22 feet wide, 2 miles 18 feet wide, 4 miles 14 feet wide, 3 1/2 miles 10 feet wide, and 3 1/2 miles 8 feet wide; all widths taken at bottom and slope of banks 1/2 to 1, an average depth of 8 feet; total amount to be excavated, 332,000 cubic yards. Construction to be completed within one year of commencing.

Written bids on furnished blanks will be received at office of Watkins & Prince, attorneys, at Anderson, S. C., at 12 o'clock noon on February 26, 1917. Bids must be in accordance with instructions to bidders, specifications, and on forms which will be furnished upon application to W. H. Shearer, Engineer and Superintendent of Construction, Anderson, S. C. Right reserved to reject any and all bids.

J. M. KNOX,  
W. E. ESKEW,  
W. H. TUCKER,  
Commissioners.  
Anderson, S. C., January 24, 1917.

Bids close March 1, 1917.

## Concrete Retaining Wall

City Engineer's Office,

Charleston, S. C., Jan. 27, 1917.

Sealed proposals will be received until 12 M. March 1, 1917, for constructing 1900 feet, more or less, of Concrete Retaining Wall at Charleston, S. C., and for filling behind same 25,000 cubic yards, more or less, of material dredged from the river. The right is reserved to reject any or all bids.

J. H. DINGLE,  
City Engineer.

Bids close February 15, 1917.

## Packing Plant and Equipment

Sealed proposals will be received by the Orangeburg Packing Company at its office in the City of Orangeburg, South Carolina, at 12 o'clock noon on Thursday, February 15, 1917.

1st. On a reinforced concrete and brick packing-house.

2d. On the complete equipment of a packing plant.

Plans and specifications may be had on application to Wilson & Sompayrac, Architects, Palmetto Building, Columbia, S. C., or to the Packers' Architectural & Engineering Company, Manhattan Building, Chicago, Ill.

A deposit of \$25 will be required as an evidence of good faith and guarantee that all documents will be returned promptly.

The right is reserved to reject any or all bids.

ORANGEBURG PACKING COMPANY.

Bids close February 21, 1917.

## Electric Lighting System

PROPOSAL FOR FURNISHING THE MATERIAL AND CONSTRUCTING THE ILLUMINATING SYSTEM OF THE MISSISSIPPI CENTENNIAL EXPOSITION.

Proposals will be received until ten o'clock Wednesday, February 21, at the office of the Director of Works of the Mississippi Centennial Exposition Company at Gulfport, Mississippi, for furnishing the material and constructing the illuminating system and electrical work on the buildings of the Mississippi Centennial Exposition.

Plans and specifications covering the same may be had by forwarding a check for \$25 for plans and specifications covering the buildings and \$5 for the plans and specifications covering the illumination of the grounds, to A. W. Lewin, Electrical Engineer of the Mississippi Centennial Exposition Company, at 631 Audubon Building, New Orleans, Louisiana, or John T. Connell, Director of Works, Gulfport, Mississippi. Right is reserved to reject any and all bids.

JOHN T. CONNELL,  
Director of Works.

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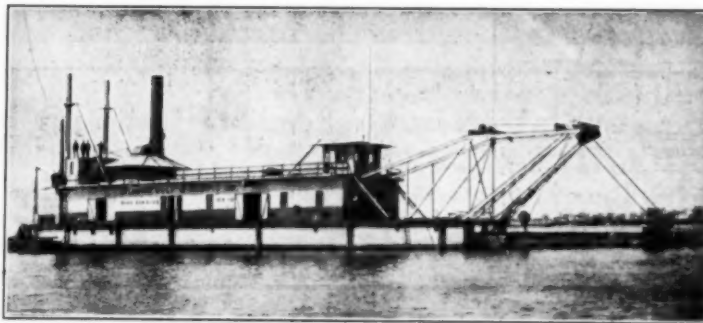
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## TRADE LITERATURE

(Continued from Page 81.)

## Lumber Stackers.

What users think of its lumber stackers is shown in a unique publication of the Soule Steam Feed Works, Meridian, Miss., in which fac-similes of letters of commendation from customers are bradded into a neat folder that bears the simple title, "Letters of Credit."

## Williams Mills.

Grinding, shredding, granulating, screening, crushing, cutting, pulverizing, disintegrating, mixing mills are among the line manufactured by the Williams Patent Crusher & Pulverizer Co., 39 Cortlandt St., New York. Catalogue No. 173, recently issued, contains descriptive matter and illustrations of some types of these machines.

## Textile Belting.

The Stanley Belting Corporation, 32-40 S. Clinton St., Chicago, Ill., has issued a pamphlet setting forth the merits of Stanley belting, made by the Landeman, Stanley Belting Co., Scotland. It is a solid woven cotton belt impregnated with a special compound, and is claimed to be unusually flexible, uniform and unaffected by extreme heat, grease, oil, gases, water, steam, etc.

## Engineering Journal.

City Planning, by Major Joseph W. Shirley, is the opening article in the February Monthly Journal of the Engineers' Club of Baltimore and should be of decided interest to the many engineers interested in that topic, which is now receiving much attention. Another article of interest is the Physical Properties of Air in Relation to Practical Problems, by H. Eisert.

## Paper Trade Directory.

The Lockwood Trade Journal Co., New York, has published the 1917 (42d) edition of Lockwood's Directory of the Paper and Stationery Trades, a cloth-bound volume of 766 pages. Because of the unusual conditions in the paper trade, the publisher thinks the directory will be of especial value, with which circumstance in view an unprecedentedly large edition was printed. An ex-

ceptionally large number of mill changes made during the year are noted.

## Tape-Drive Spinning Frames.

In a recent folder from the Saco-Lowell Shops, textile machinery, 77 Franklin St., Boston, Mass., it is stated that the company has built about 1,000,000 spindles equipped with tape drive spinning frames, one of the chief advantages of which is said to be the nearly constant spindle speed readily obtained with this drive, with consequent decrease in loss of production and improvement in quality of product.

## Concrete for Permanence.

The initial 1917 number of "The Standard," published monthly by the Standard Portland Cement Co., Birmingham, Ala., and which carries as its slogan the caption above, contains pertinent articles bearing on cement's place in commerce and industry—its importance to the building supply man because of the constantly increasing demand, its diversified uses, examples of its use in permanent construction, publicity to be given cement in 1917.

## Power Hammers.

Simplicity of construction, economy of power and floor space, adaptability to various requirements, easy adjustments, large range of work, durability are principal structural features claimed in a recent catalogue for Fairbanks power hammers, manufactured by the United Hammer Co., 141 Milk St., Boston, Mass. Each of these qualities is discussed separately as possessed by these hammers, and illustrations of machines and parts, dimensions and other tables, are given.

## Foreign Trade Information.

Pamphlets have been published by the Bureau of Foreign and Domestic Commerce on "Russia Will Need Hardware" and "Cuban Market for Our Electrical Goods," price 15 and 5 cents, respectively. The former, the sixth in a series on hardware markets of the world, deals with Americans' chances to furnish a large part of the annual Russian hardware importation, amounting to \$23,000,000. The latter contains a clear thorough description of needs of the Latin-American markets for American electrical goods.

## United Railways Forum.

A monthly house paper of exceptional interest is being published by the United Railways & Electric Co., Baltimore, under the title of the United Railways Forum, for the employees of the company. The February issue, besides containing information of civic and city railway improvements, carries much personal news of employees, of which commendations for noteworthy service is a portion calculated to cultivate fidelity to duty and esprit de corps.

## Mastic Mixing Machine.

At the Iroquois works (Buffalo, N. Y.) of the Barber Asphalt Paving Co., Philadelphia, Pa., a mastic mixing machine has been developed, designed to effect a saving over the old method of shipping the material ready pot mixed, and obtain a more uniform mixture, both of which it is claimed to do. This machine has two heating drums in which the bitumen, dust and other mineral aggregate are combined in the mixer located at the site of the work. A description of the machine and its operation is contained in a recent bulletin.

## "In the Land of the Sky."

Glimpses of Asheville, N. C., "America's beauty spot," and the surrounding Blue Ridge country are given in a pamphlet issued by the Asheville Board of Trade. The city's excellent hotels, its public buildings, churches, schools, typical residences are shown; then out along the improved roads through the famous Blue Ridge Mountains, with all their gorgeous scenic wonders, the booklet, by text and illustration leads. Splendid agricultural and industrial opportunities are called to attention, the marked successes in these directions already made being cited.

## Clay Products Plant.

An engineer's report on the quality and quantity of available clay on the plant (present and proposed) markets, shipping facilities and intrinsic value of the property of the former Easton Brick & Tile Manufacturing Co., recently taken over by the Clay Products Manufacturing Co., 15 E. Fayette St., Baltimore, is given in a pamphlet issued, containing also other matter pertaining to the value of the property, advertising the sale of \$30,000 7 per cent. cumulative pre-

ferred stock of the recently organized company.

## Factory Fire Protection.

William Guerlin, chairman Fire Prevention Committee of the Safety First Federation of America and organizer of the New York City Fire Prevention Bureau, of which he was head for three years, has written a valuable manual of fire prevention for industrial plants, expressed in simple, condensed style, free from encumbering technicalities, for the use of factory owners and superintendents, fire chiefs, maintenance engineers, etc. The book is published by the Pyrene Manufacturing Co., New York, under the title of "Protecting Your Factory from Fire," and priced at \$1.

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